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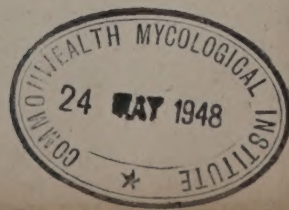
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FOOD AND AGRICULTURE

THE FAO EUROPEAN
BULLETIN No. 5

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OF THE FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS

SUMMARY

ARTICLES

- D. VAMPA - Fruit and vegetables in the Italian diet, p. 348.
A. HORN - Some aspects of the progeny testing of dairy cattle, p. 356.
L. FENAROLI - Hybrid corn program in Europe, p. 358.
L. KRÜGER - Livestock breeding and animal husbandry in the American and British zones of Germany, p. 362.
FOURTH MEETING OF THE FAO EUROPEAN NATIONAL COMMITTEES, p. 371.

ITEMS OF INFORMATION

[Nutrition, p. 376 - Agriculture, p. 378 - Animal Production, p. 390 - Milk and milk products, p. 392 - Agricultural Industries, p. 392 - Economics and Markets, p. 395 - Fisheries, p. 403 - Forestry, p. 404 - Viticulture, p. 408 - Plant Diseases and Insect Pests, p. 409 - Horticulture, p. 410 - Rural Welfare, p. 413 - News from Africa, p. 415 - FAO Activities, p. 417 - News in general, p. 422 - Agricultural National Publications, p. 425].

LEGISLATIVE NEWS

[Nutrition, p. 426 - Agriculture, p. 431 - Economics and Markets, p. 434 - Statistics, p. 437 - Forestry, p. 438 - Fisheries, p. 438 - Rural Welfare, p. 439].

BIBLIOGRAPHY

Articles on FAO, p. 441.
New books, p. 442.

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FRUIT AND VEGETABLES

by **Dino VAMPA**

Chief, Food Investigations and Production
Office, Food Ministry

IN THE ITALIAN DIET

The consumption of fruit and vegetables in Italy can be deduced, in the main, from the figures in the following table which indicate for vegetables and tomatoes, fruits (fresh and dried) and citrus fruits, the average supplies available per year per inhabitant from 1911 to 1940*.

Average annual supplies available per inhabitant as regards fruit and vegetables (in kg.).

Product	1911-15	1916-20	1921-25	1926-30	1931-35	1936-40
Vegetables. . . .	61.4	61.4	74.1	68.4	60.4	54.6
(a) Field vegetables. . . .	37.2	37.6	43.7	41.0	35.6	31.8
(b) Other vegetables and kitchen garden produce. . . .	24.2	23.8	30.4	27.4	24.8	22.8
Tomatoes. . . .	21.1	17.8	22.1	19.8	14.5	16.9
Fresh fruit. . . .	29.0	32.0	30.6	31.2	30.0	22.3
Citrus fruit. . . .	13.0	15.0	9.5	10.1	12.6	7.9
Dried fruits. . . .	25.8	24.3	20.2	17.7	13.7	11.2

During the period in question, from 1911 to the beginning of the last war, the consumption of these products gradually and constantly decreased owing to the larger Italian exports of fruits and vegetables and to the gradual change in the diet of the Italians, who increased their consumption of economically and biologically richer foodstuffs (animal products, fat, sugar), to the detriment of less appre-

ciated foods (cereals). Despite this shrinkage, however, fruit and vegetables continue to play an important part in the diet of Italians who consumed, during the period just prior to the war, approximately 170 kg. per year per caput.

During the war years, because of the shortage of cultivation material and the necessity of concentrating efforts on essential products, less fruit and vegetables were available for consumption. This decline varied very appreciably according to region, owing to the difficulty in transporting goods and traffic restrictions inside the country.

Since the end of the war, supplies of these products have again increased. It is wished to call attention to this point, emphasizing the contribution of these products in the solution of the Italian food problem which greatly improved in 1947, despite the shortage of cereals and other basic products such as meat, milk and fats.

For the last few years there are no definite statistics on the average consumption per caput of fruit and vegetables. An endeavour will be made to utilize the rough data available, which also serve in the drafting of official statistics.

It must be admitted that vegetable production has increased, especially in 1946 and to an even greater extent in 1947. On the other hand, fruit and vegetable exports during these years have remained low, notwithstanding the promising renewal of international barter agreements and, compared with 1946, increased sales on foreign markets in 1947.

* BARBERI, B. Le disponibilità alimentari della popolazione italiana dal 1940 al 1942, Rome, 1946.

TABLE I.
Production of certain vegetables and fruits in Italy
(in thousand quintals)

Product	1936-39 (yearly average)	1946	1947	Difference (4-3)		Difference (4-2)	
				Absolute	%	Absolute	%
1	2	3	4	5	6	7	8
Tomatoes	9,525	8,334	9,956	+ 1,622	+ 19.5	+ 431	+ 4.5
Asparagus	115	88	92	+ 4	+ 4.5	— 23	— 20.0
Artichokes	764	809	835	+ 26	+ 3.2	+ 71	+ 9.3
Cardoons, fennel and celery	1,277	1,197	1,350	+ 153	+ 12.8	+ 73	+ 5.7
Cabbage	4,595	4,919	5,321	+ 402	+ 8.2	+ 726	+ 15.8
Cauliflower	2,683	3,445	3,602	+ 157	+ 4.6	+ 919	+ 34.3
Onions and garlic	1,490	2,267	2,112	— 155	— 6.8	+ 622	+ 41.7
Melons and watermelons . . .	3,977	3,469	3,797	+ 328	+ 9.5	— 180	— 4.5
Oranges	3,255	2,660	3,193	+ 533	+ 20.0	— 62	— 1.9
Tangerines	534	425	493	+ 68	+ 16.0	— 41	— 7.7
Lemons	3,269	2,197	2,461	+ 264	+ 12.0	— 808	— 24.7
Other citrus fruit	318	254	236	— 18	— 7.1	— 82	— 25.8
Apples	2,883	2,993	4,837	+ 1,844	+ 61.6	+ 1,954	+ 67.8
Pears	1,971	2,433	2,528	+ 96	+ 3.9	+ 557	+ 28.3
Peaches	2,307	2,209	2,341	+ 132	+ 6.0	+ 34	+ 1.5
Apricots	251	204	136	— 68	— 33.3	— 115	— 45.8
Cherries	673	918	1,027	+ 109	+ 11.9	+ 354	+ 52.6
Greengages	517	570	656	+ 86	+ 15.1	+ 139	+ 26.9
Fresh figs	3,062	3,061	3,621	+ 560	+ 18.3	+ 559	+ 18.3
Almonds	1,804	1,098	1,633	+ 535	+ 48.7	— 171	— 9.5
Hazel-nuts	218	303	130	— 173	— 57.1	— 88	— 40.4
Walnuts	480	425	495	+ 70	+ 16.5	+ 15	+ 3.1
Dried figs	838	549	595	+ 46	+ 8.4	— 243	— 29.0

N. B. — For cardoons, fennel and celery, cabbage and cauliflower, and also citrus fruit, the 1945 and 1946 crop yields are given for 1946 and 1947, since the majority of these products were available for consumption in 1946 and 1947.

The 1947 crops of nearly all the products listed in Table I are higher than the harvests obtained in 1946, in some cases as, for instance, apples and almonds, showing a very marked increase. Compared with the normal average yields during the pre-war period, harvests were more abundant for nearly all vegetables, smaller for citrus fruits and nuts, larger for pomaceous fruits, cherries, etc. The falling off in yield of the citrus and almond grower which has continued for some years is due to inadequate cultivation care and shortage of parasiticides. The products required for carrying out anti-parasitic treatments were scarce and too expensive in comparison with the selling price of the fruit, especially as the war had shut off the foreign markets formerly open.

The increase in production has not been accompanied by a similar recovery in exports. Table II groups the figures for the average annual exports during the five-year period 1934-38, 1946 and 1947, as well as the differences in absolute and relative values, between 1947 and 1946 yields, and between those for 1947 and the 1934-38 average. These differences show to what extent Italian economy suffered through the impossibility of placing fruit and vegetables abroad. On the other hand, a comparison of the export figures for 1946 and 1947 is encouraging as it indicates a resumption in the selling of Italian produce abroad, although the quantities sold are still less than those normally marketed before the war. In effect, the figures for 1947 only exceed the annual averages in

TABLE II.

Fruit and vegetable exports and comparison of 1946 and 1947 exports with the average annual 1934-38 exports.

(quintals)

Product	Annual average 1934-38	1946	1947	Difference 1947 with 1946		Difference 1947 with 1934-38		Annual average 1946-47	Difference 1946-47 with 1934-38	
				Absolute	%	Absolute	%		Absolute	%
<i>Vegetables :</i>										
Cabbage and cauli- flower	580,176	92,939	298,797	+ 205,858	+221.5	- 281,379	-48.5	195,868	- 384,308	- 66.2
Garlic and onions. . .	204,263	151,400	370,570	+ 219,170	+144.8	+ 166,307	+81.4	260,985	+ 56,722	+ 27.8
Other vegetables . . .	454,390	95,034	277,787	+ 182,753	+192.3	- 176,603	-38.9	186,411	- 267,979	- 59.0
<i>Tomatoes :</i>										
Fresh tomatoes	365,147	104,368	264,983	+ 160,615	+153.9	- 100,164	-27.4	184,676	- 180,471	- 49.4
Peeled tomatoes	454,118	170,843	111,207	- 59,636	- 34.1	- 342,911	-75.5	141,025	- 313,093	- 68.9
Tomato preserve	462,845	63,250	113,847	+ 50,597	+ 80.0	- 348,998	-75.4	88,549	- 374,296	- 80.9
<i>Fresh fruits and ci- trus :</i>										
Citrus fruits	3300,668	849,036	1998,032	+1148,996	+135.3	-1302,636	-39.5	1423,534	-1877,134	- 56.9
Table grapes	258,202	212,767	160,642	- 52,125	- 24.5	- 97,560	-37.8	186,705	- 71,497	- 27.7
Apples.	376,562	167,151	604,652	+ 437,501	+261.7	+ 228,090	+60.6	385,902	+ 9,340	+ 2.5
Pears	233,690	395,084	266,766	- 128,318	- 32.5	+ 33,076	+14.2	330,925	+ 97,235	+ 41.6
Peaches, apricots and plums	645,765	258,351	572,631	+ 314,279	+121.6	- 73,135	-11.3	415,491	-2309,274	- 35.7
Cherries	146,751	43,120	141,231	+ 98,115	+227.5	- 5,516	- 3.8	92,178	- 54,573	- 37.2
Other fresh fruit . . .	50,983	33,135	26,241	- 6,890	- 20.8	- 24,738	-48.5	29,690	- 21,293	- 41.8
<i>Dried fruit :</i>										
Chestnuts	266,740	137,180	223,691	+ 86,511	+ 63.1	- 43,049	-16.1	180,436	- 86,304	- 32.4
Dried figs	96,851	7,674	22,521	+ 14,850	+193.5	- 74,327	-76.7	15,099	- 81,752	- 84.4
Nuts in the shell (al- monds, walnuts, hazel-nuts)	210,028	118,986	84,275	- 34,711	- 29.2	- 125,753	-59.9	101,631	- 108,397	- 51.6
Almonds and hazel- nuts, walnuts, (shell- ed)	288,260	199,531	124,980	- 74,551	- 37.4	- 163,280	-56.6	162,256	- 126,004	- 43.7
Other dried fruit . . .	64,663	7,440	7,764	+ 324	+ 4.4	- 56,899	-88.0	7,602	- 57,061	- 88.2

the case of garlic and onions, and apples and pears. For all other products, the volume of exports remained below the normal average: the export of peeled tomatoes and tomato sauce has diminished by over 3/4; that of dried fruit and nuts by nearly 60 per cent.; cabbages and cauliflowers by half; citrus fruit approximately 40 per cent.

It is unnecessary to recall the various causes which at the moment prevent the Italian fruit and vegetable production from ranking higher on foreign markets. Much de-

pends on the international political and economic situation aiming at attaining a balanced level at which the interests and possibilities of Italian economy should find their right position. This situation has favoured the Italian market and consumer. The domestic market has benefited from the greater supply of these products, although this has meant a decline in exports. Italy thus loses the possibility of procuring the necessary means for purchasing abroad the commodities indispensable for the recovery of its economy,

while, on the other hand, foreign markets are deprived of the fruits and vegetables which are a typical production of Italian agriculture.

The rate of vegetable and fruit supplies to the town markets in 1947 compared with

the previous year, agrees fully with the statistics indicated for production and foreign trade. The following figures, recorded by the market officials, show the consignments of fruit and vegetables which arrived at the central markets of 10 large Italian cities :

Vegetables, potatoes, fruit and lemons supplied to the central markets of 10 large Italian cities in 1946 and 1947 (half-year periods).

	Vegetables			Potatoes			Fruits and lemons		
	First half-year	2nd half-year	Total	1st half-year	2nd half-year	Total	1st half-year	2nd half-year	Total
1946	187,968	189,245	377,213	50,674	57,805	108,479	236,684	368,923	605,607
1947	217,260	214,421	431,681	68,170	71,589	139,759	250,325	448,796	699,121
% increase	15.6	13.3	14.4	34.5	23.8	28.8	5.8	21.7	15.4

As is seen, the increase for the two half-years of each of the years in question and for the three categories of products is considerable. It is to be noted that for vegetables and potatoes, the increase is greater in the first half-year than in the second, while the opposite is the case for fruits and lemons. Because of the good crops obtained in 1946 and 1947 (2,287,600 tons and 2,804,500 tons respectively as against 1,428,000 tons in 1945), potatoes showed a higher percentage increase compared with fruits and vegetables. The appreciable increase in fruit consignments during the second half-year of 1947 was due almost entirely to the super-abundant harvest of apples which exceeded that of previous years by about 200,000 tons.

In order to examine more closely this special aspect of the fruit and vegetable problem in Italy, the consignments of fruit and vegetables which arrived at the Rome central market every week during the three-year period 1945-47, have been plotted. The spirals in Graphs I and II give a progressive idea of the volume of these consignments from the beginning of each year to the end of each week in the same year. The spokes of these graphs indicate the quantities of products offered for consumption during each of the

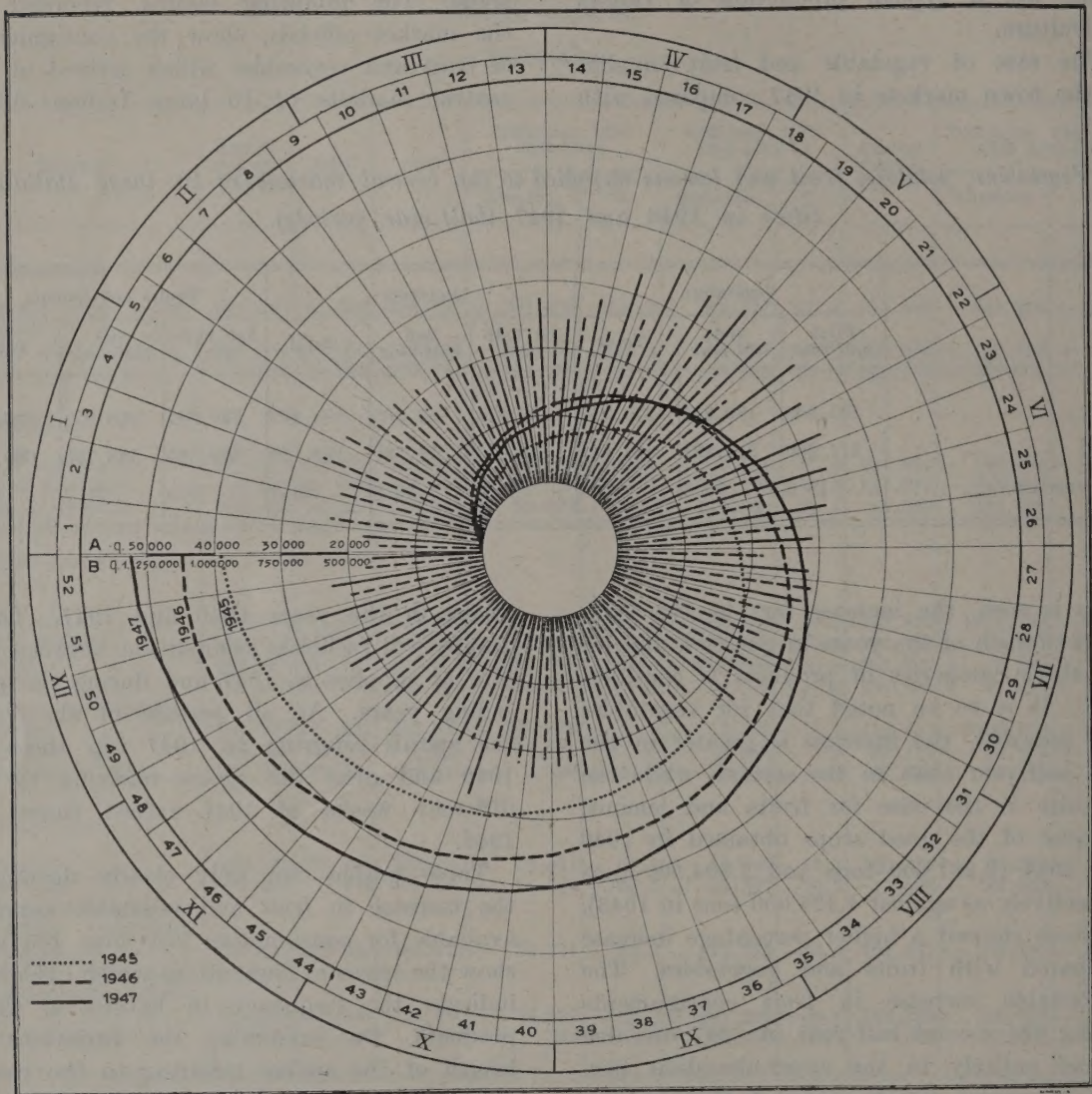
weeks in the years 1946 and 1947. These graphs will facilitate comparison between the rate of supplies in 1947 and during the preceding years. At all periods of the year, the spirals referring to 1947 top those of 1946 and even the spokes referring to the different weeks of 1947 exceed those for 1946.

These graphs not only clearly document the increase in fruit and vegetable supplies available for consumption last year, but also show the seasonal fluctuations which evidently indicate the frequency in harvesting these products. On examining the variations in length of the spokes referring to the weeks of the year, it will be seen that the maximum consignments of vegetables arrive in spring and summer, and of fruit, in summer and autumn. Therefore the peak period for vegetables coincides with the period when fruit is scarce.

Vegetable supplies are lowest in winter, and fruit in the spring. The functions which represent the variations in consignments of vegetables and fruits throughout the year depend on the production period for these vegetables and fruits. Consequently, it is useful to note the contents of the periodical consignments, that is, the different kinds of

GRAPH. I. — VEGETABLE CONSIGNMENTS TO ROME

I = January II = February III = March IV = April V = May VI = June VII = July VIII = August
IX = September X = October XI = November XII = December



Spokes: Scale A = 5 Weekly consignments

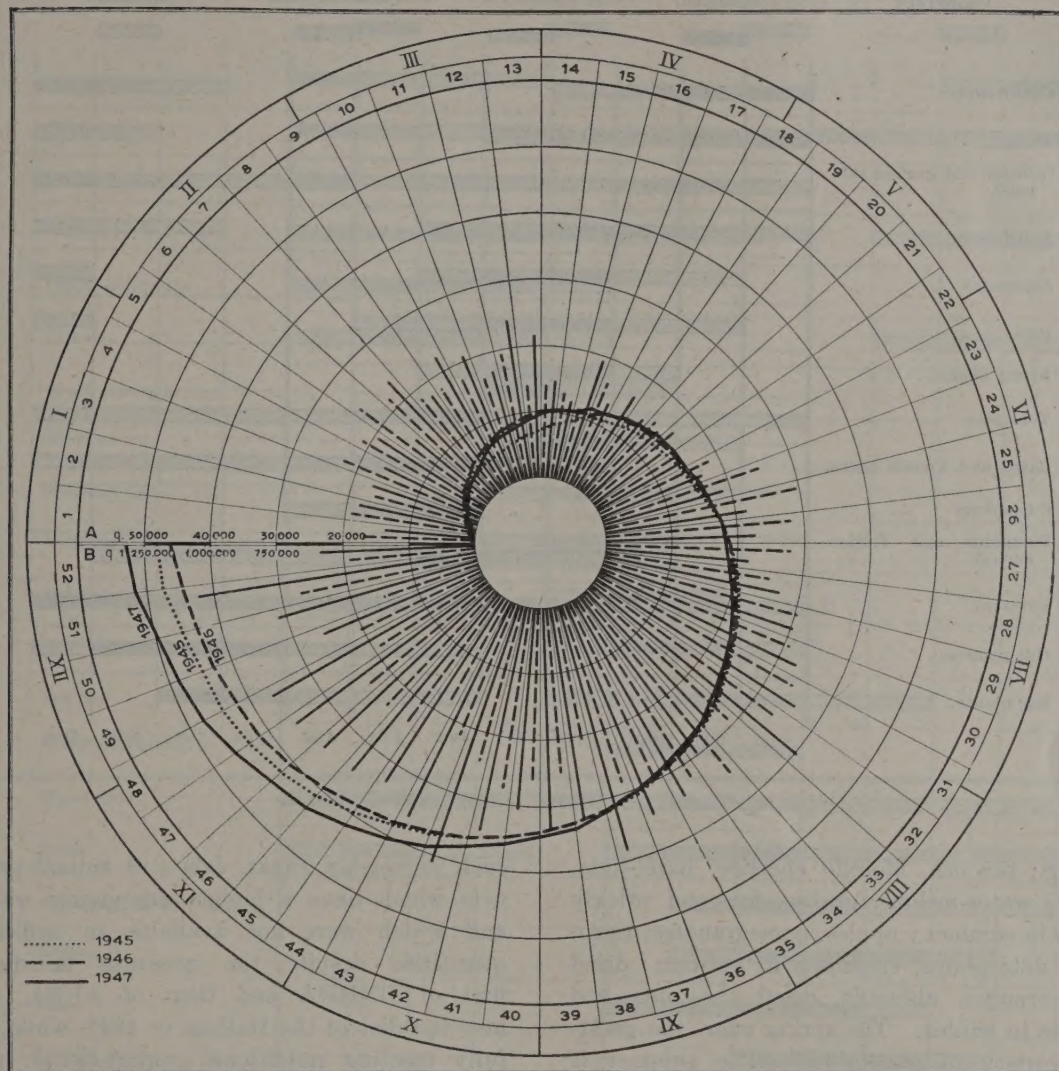
Spirals: Scale B = Consignments from beginning of year to end of each week

fruits and vegetables. In this way the fluctuations, during the year, in the quantity of each product in ratio to the total supplies of fruit and vegetables on the market, can be estimated. Thus, a 'consumption calendar' can be drawn up for each product, and, for perishable products, a calendar of harvest periods and available supplies. Figures 1 and 2 are based on the results obtained in regard to the fruit and vegetable market in

Rome in 1946. They indicate for certain specific vegetables (categories under which several kinds of vegetables are grouped under a general term, as, for example, 'greens' which include salad, Swiss chard, etc., have been disregarded), and for different kinds of fruits the months during which they are available on the market, and the maximum and minimum periods. For each product, there is a month of maximum supply which serves as

GRAPH. II. — FRUIT AND LEMON CONSIGNMENTS TO ROME

I = January II = February III = March IV = April V = May VI = June VII = July VIII = August
IX = September X = October XI = November XII = December



Spokes: Scale A = Weekly consignments

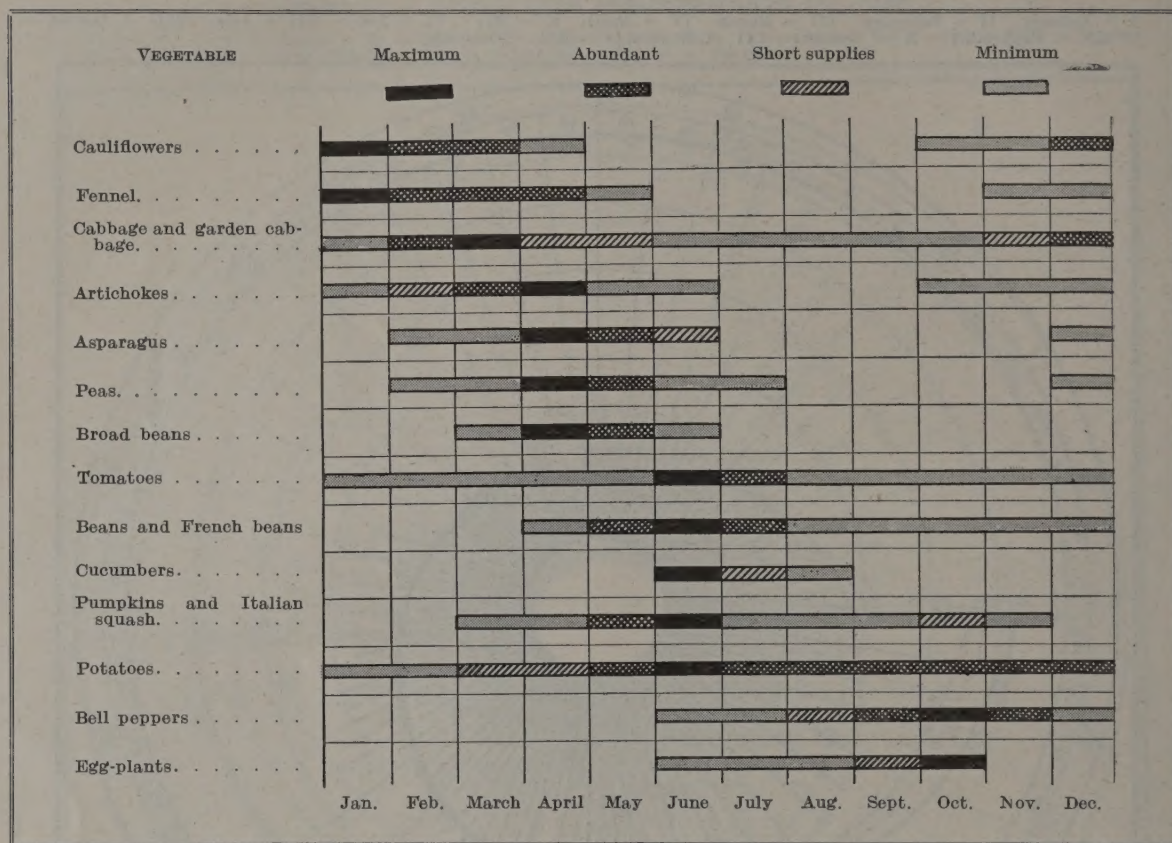
Spirals: Scale B = Consignments from the beginning of the year to the end of each week.

reference point to ascertain whether, in the other months, the consignments which arrive are abundant, scarce or minimum. Although this enquiry only covers a year, the results may be taken as giving an exact idea of the vegetative cycle of the different products.

Spring, summer, autumn and winter vegetables and fruit are easily located in the two diagrams. The kinds of vegetables included

in the enquiry come in the following sequence during the year: artichokes, asparagus, green peas, green broad beans, tomatoes, fresh beans and French beans, cucumbers, pumpkins and Italian squash, potatoes, bell peppers, egg-plants, cauliflower, fennel, green cabbage and garden cabbage. Fruits come in the following order: fresh almonds, cherries, strawberries, loquats, apricots and plums in

Fig. 1. — VEGETABLE AND POTATO CONSIGNMENTS TO ROME IN 1946



spring ; peaches, Morello cherries, hazel-nuts, pears, water-melons, grapes, figs and prickly pears in summer ; apples, pomegranates, European date-plums, chestnuts in autumn ; dried figs, oranges, almonds, dried chestnuts and prunes in winter. The spring offers the greatest variety of vegetables, while summer is the best season for fruit. This explains the seasonal variation in supplies to the fruit and vegetable markets in Italy.

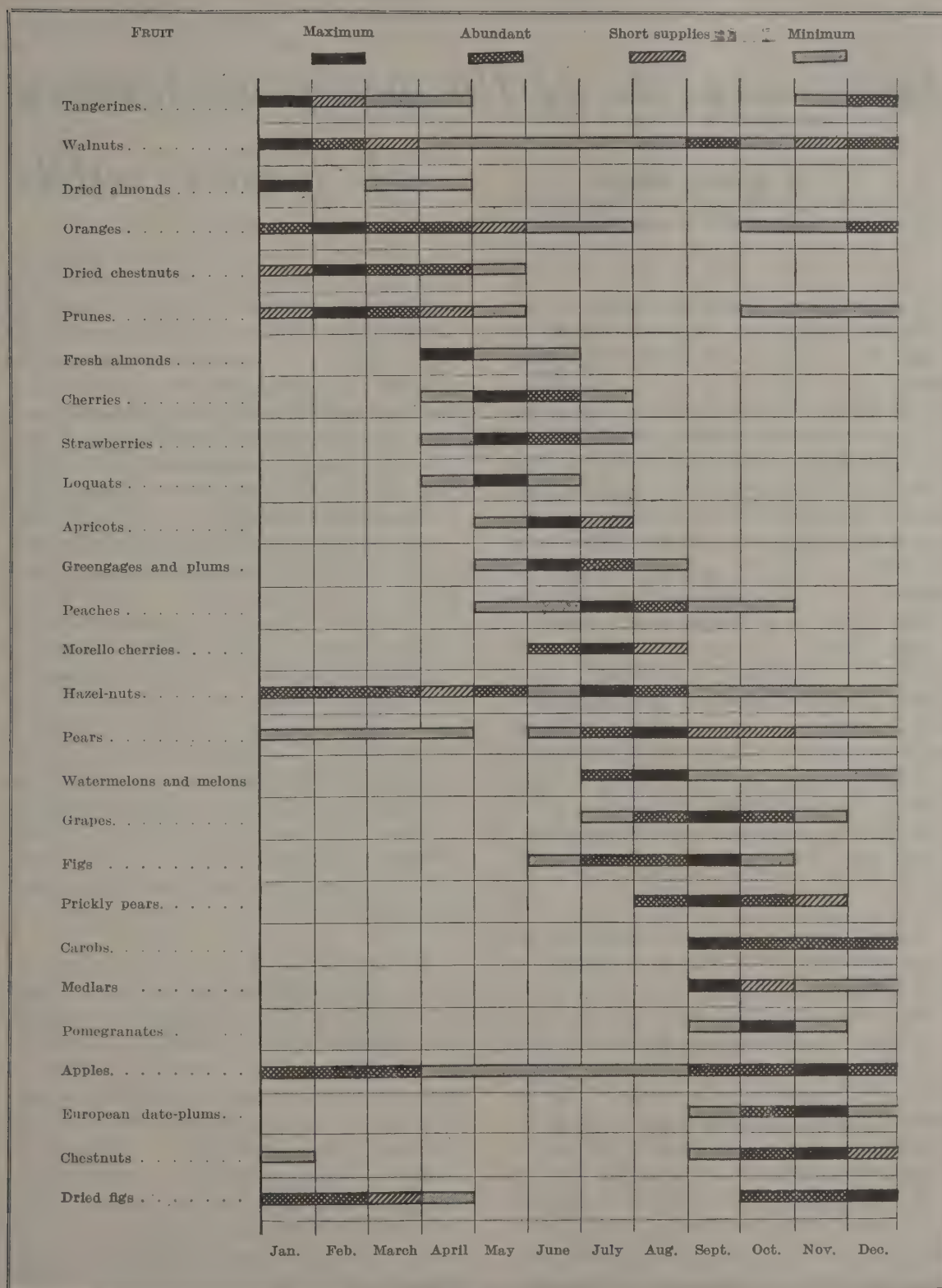
The statistics and diagrams discussed in this article are a clear indication of the increase in fruit and vegetables supplies available for domestic consumption in 1947. This increase contributed considerably towards improving the general food situation in 1947 in comparison with the critical preceding years. It remains to be seen how it was possible, through fruit and vegetables, if not to compensate, at least to mitigate the food crisis due to the shortage of other essential products,

such as cereals, sugar, fats and animal products which have a higher energizing value, and which were not available in sufficient quantities despite the generous assistance first of UNRRA and then of AUSA, and how the diet of the Italians in 1947, while not fully meeting nutritional requirements, prevented the physiological disorders, which should have ensued, from occurring.

In other European countries too, there was an increased consumption of foods of vegetable origin, which, during the war, replaced those of animal origin. This change was noted by the nutritionists with satisfaction, since it allows of an improved use of agricultural food products *.

* cf. 'The Lower Norms of a Sufficient Diet' by A. Fleisch, p. 199 onward, Vol. Medicine and Biology ; Lesson of the War (1939-45) in the Realm of Nutrition — Paris, Liège 1947.

FIG. 2. — FRUIT CONSIGNMENTS TO ROME IN 1946



Some aspects of the progeny testing of dairy cattle

by **Arthur HORN**

Professor of Animal Husbandry at the Hungarian University
of Agriculture — Keszthely - Hungary

I do not think to be far from the truth if I venture the statement, *that the rapidity of future developments in animal breeding greatly depends on the efficiency of methods for evaluating the sires of future generations*. Since the practice of artificial insemination is growing in popularity and the latest statistical data show that already millions of animals are artificially inseminated, the significance of the above statement is only increased. It is very interesting to note for instance, from the latest Danish observations that with the intensive practice of artificial insemination a relatively small number of outstanding families give the majority of the sires. The natural consequence of this is that any undesirable qualities in these sires are established in a vast number of animals. When I talk of undesirable qualities I think, not only of low productive capacity, but of constitutional defects, which, very often, do not appear in the first productive years of the progeny, such as lack of longevity, food efficiency persistency, etc.

For the progeny testing of dairy cattle we know already quite a number of methods. I only mention the different indexes which are mostly used in the U.S.A. (Yapp's index, Goodale's index, Rice's index, etc.) which are all of vital interest. In Europe we mostly work in the 'direction of inheritance'. *Yet the greatest difficulty presents itself in using any method through the evaluation of the records*. Environmental conditions influence the records of cows very considerably. For instance, in countries with a continental climate where the food and hay crops vary to a very large extent according to the yearly rainfalls, such

as Hungary, *it is most difficult to compare the records of one year with those of another* and one might get an entirely wrong picture of a sire if his offspring came into production under unfavourable conditions. The same may be said for the dams. For this reason most of the experts in dry countries, where the feeding of the dairy cows cannot be based upon the pastures and depends to a considerable extent upon the crops, find it more efficient to work with index numbers expressing each year's average production of one herd (Patow, v. Lochow) or, in case of smallholders, of one village because feeding conditions within a herd or a village are as a rule very similar. If a bull can raise the index numbers of his progeny above the average, one may at least know of him that his offspring will show a better capacity for transforming food into milk under similar conditions, through the average of cows or of the dams. The herd or village average is expressed every year by 100, those cows producing more milk than the average get as an index number more than 100.

Another aspect of the progeny testing of sires is *that practically all the methods deal with the milk production only and pay relatively little attention to the constitution, food efficiency, etc. of the animals, yet these qualities influence the profitableness of milk production very often more distinctly than the increase of the yearly average production by 1,000 or 2,000 pounds of milk*. Furthermore most indexes are based only upon the first lactation of the offspring. Yet this lactation does not make it possible to get a picture of the general constitution or food-efficiency of the cows. There

is only one possible way as yet to get an approximate idea of the resistance of the organism and to evaluate the constitution and that is by the longevity and lifetime production which, if considerable, guarantees a good constitution. The difficulty of taking these in account is the short time available for testing a sire.

I made investigations in this respect in Mezöhegyes (Hungary) which was a state farm with 700 Simmental cows of a very high standard of production (average milk production 4-6000 kg. per year) kept under practically identical conditions. *In proving the inheritance of a number of bulls it was very interesting to note that some bulls had a favorable effect in raising the first and second lactation record of their daughters, but had an undesirable effect on their offspring as far as their lifetime production was concerned. This means in other words that some bulls transmitted a good milking ability but had a bad effect, not only*

on the constitution of their daughters, but also on the economic productivity of their offspring.

In some respects a certain security may be attained if the bulls used for artificial insemination or as sires of a great number of bulls for breeding purpose, descend from dams having had already a considerable lifetime production. *If the sire is the 7th or 8th calf of a good producing cow one may have at least some security that it will hand on a good constitution.* Considering that the progeny testing of bulls is a rather expensive procedure, only bulls of the above mentioned origin should be tested for the milk production of their offspring.

Owing to the vital importance of the progeny testing of dairy cattle it would be of general interest to discuss internationally the methods used all over the world and to fix some basis, to overcome the various difficulties presenting themselves under different climatic and breeding conditions.

HYBRID CORN PROGRAM IN EUROPE

by **Luigi FENAROLI**

Director, Corn Experiment Station at Bergamo (Italy)

Hybrid corn, first developed in the United States, is responsible for the enormous increase in food production during the years of world-war II.

Its growth has been limited until recently to the United States but its theoretical knowledge has been known elsewhere for many years before the war and we find information regarding hybrid corn in many technical papers of Italy or of other European countries. However no practical application of this new technique was developed.

The opportunity to develop a hybrid corn program in Europe was taken in consideration seriously only at the end of the world-war II when the United Nations were confronted with the urgent need to supply food to the European peoples menaced by starvation in their war-ravaged countries.

The program started in 1946 when UNRRA, approached by the Italian government, sent an agricultural scientist to the United States



The shipment of 29 varieties of hybrid corn seed from America was prepared for dispatch to 14 European and 4 non-European countries at the European Bureau of FAO in Rome. The photograph shows on the table the original sacks in which the hybrids arrived; on the shelves are the bags for dispatch to various countries.

on an agricultural fellowship to study the problem. The Director of the Italian Corn Experiment Station at Bergamo spent seven months of activity at the Agricultural Experiment Stations of the United States Corn-

Belt and returned to Italy in February 1947 in time to start in the same year this new program of experimental work.

In spring 1947 UNRRA supplied the Italian Corn Experiment Station with some of the most commonly grown hybrids in the United States, which were tested for acclimation and yield in four yield-test plots scattered throughout Northern Italy.

In summer 1947, more precisely from 28 July to 12 August, a Hybrid Corn School was held at Bergamo under the auspices of FAO. This demonstration school had the scope of bringing together delegates of countries interested in hybrid corn breeding and improvement programs in order to advise them of the work carried out in the United States, assist them in developing hybrid corn and inform them of the most up-to-date techniques employed in hybrid corn production.

The school was headed by Prof. Merle T. Jenkins of the U. S. Department of Agriculture, Prof. P. S. Hudson of the Cambridge University and Prof. Fenaroli, Director of the Corn Experiment Station at Bergamo.

Delegates from 9 countries (Austria, Czechoslovakia, France, Great Britain, Hungary, Italy, Portugal, Switzerland, Yugoslavia) attended the school, in addition to the Italian experts coming from the Provincial Inspectorates of Lombardy, Veneto and Emilia Regions.

As a follow-up of the work carried out in 1947 FAO has arranged to supply 29 varieties of hybrid seed corn and 80 inbred parent lines for experimental work in the different countries interested in hybrid corn production. This hybrid corn seed will be divided into small lots and forwarded to the different experiment stations in Europe carrying out a hybrid corn breeding and improvement program.

Great interest has been shown in this program not only by the countries which sent delegates to the Hybrid Corn School last year but also by other countries of Europe such as Norway, Netherlands and Poland and coun-

tries from the Middle East such as Lebanon, Afghanistan, Egypt and Syria.

It is also hoped that FAO will hold a meeting after 15 December 1948 at the Corn Experiment Station at Bergamo inviting the countries which have participated in the hybrid corn breeding and improvement programs to send their delegates for the purpose of reporting the results obtained, discussing all related problems, establishing the program for 1949 and exchanging material.

The results of the first experiment in Italy on growing corn-hybrids are summarized as follows.

(a) Location and characters of the experimental tests

FIELD-TEST I. — This test-field was located on the farm Monasterolo of Mr. Papetti near Brembio (Lombardy, Prov. Milano) at 45 degr. 12' lat. and 9 degr. 35' E long at an elevation of 200 feet, in an irrigated area. The soil is clayey and acid. The corn was irrigated once on 18 July. The plot was planted on 23-24 April and harvested on 29 August.

FIELD-TEST II. — This test-field was located on the farm Beauregard of Mr. Bruno, six miles southwest of Savigliano (Piedmont, Prov. Cuneo) at 44 degr. 36' latitude and 7 degr. 36' E longitude and at an elevation of about 1100 feet, in an irrigated area. The soil is alluvial, limeless, neutral. The corn was irrigated twice, in July and August. The field was planted on 12 May and harvested on 5 October.

FIELD-TEST III. — This field was located on the farm Belvedere of Mr. Fior, two miles south of Aquileja (Veneto, Prov. Udine), at 45 degr. 44' latitude and 13 degr. 23' E longitude and at an elevation of 20 feet, in a dry area. The soil is sandy, chalky, subalkaline, dry. The corn was never irrigated. The field was planted on 6 May and harvested on 13 September.

FIELD-TEST IV. — This test-field was located on the Experiment Farm of the Corn Experiment Station, three miles west of Bergamo (Lombardy, Prov. Bergamo) at 45 degr. 41' latitude and 9 degr. 37' E longitude and

Comparative table of the 4 yield-test fields in Northern Italy, 1947.

No.	Entries	Field I		Field II		Field III		Field IV		Yield-average		Yield index
		quintals per ha.	bushels per acre	quintals per ha.	bushels per acre	quintals per ha.	bushels per acre	quintals per ha.	bushels per acre	quintals per ha.	bushels per acre	
1	* P.S.I. 47154 . . .	57.1	90.8	71.7	113.9	47.3	75.1	—	—	58.7	93.3	150.9
2	" 47080 . . .	58.6	93.2	—	—	—	—	—	—	58.6	93.2	150.6
3	" 47156 . . .	58.4	92.9	36.5	101.0	52.5	83.5	52.8	84.0	58.6	90.3	146.0
4	" 47163 . . .	59.1	94.0	57.7	91.7	48.7	77.4	—	—	55.2	87.8	141.9
5	" 47059 . . .	54.5	86.7	—	—	—	—	—	—	54.5	86.7	140.0
6	" 47030 . . .	55.0	87.5	57.5	91.4	47.4	75.3	—	—	53.3	84.7	137.0
7	" 47166 . . .	53.1	84.4	64.4	102.4	42.2	67.0	—	—	53.2	84.6	136.8
8	" 47162 . . .	55.3	88.0	56.3	89.5	46.8	84.4	—	—	52.8	84.0	135.7
9	" 47155 . . .	56.3	89.5	55.8	88.7	46.2	73.5	—	—	52.8	84.0	135.7
10	" 47157 . . .	52.2	83.0	55.1	87.6	47.1	74.9	56.2	89.4	52.6	83.6	135.2
11	" 47153 . . .	41.6	66.1	71.9	114.3	41.4	65.9	54.2	86.2	52.3	83.2	134.4
12	" 47152 . . .	43.0	68.4	69.2	110.0	44.1	70.0	—	—	52.1	82.8	133.9
13	" 47161 . . .	58.5	93.0	53.1	84.4	48.9	77.7	46.8	84.4	51.8	82.4	133.2
14	" 47051 . . .	49.7	79.1	60.7	96.5	44.5	70.8	—	—	51.6	82.0	132.6
15	" 47052 . . .	49.8	79.2	56.7	90.2	48.2	76.7	—	—	51.6	82.0	132.6
16	" 47158 . . .	52.7	83.8	61.3	97.5	46.1	73.3	45.4	72.2	51.4	81.7	132.1
17	" 47171 . . .	55.3	88.0	46.9	74.6	56.6	90.1	46.0	73.1	51.2	81.4	131.6
18	" 47174 . . .	52.4	83.3	54.2	86.2	43.1	68.5	54.6	86.8	51.1	81.2	131.4
19	" 47172 . . .	53.8	85.5	62.4	99.2	43.6	69.3	43.9	69.8	50.9	80.9	130.8
20	" 47053 . . .	56.1	89.2	52.5	83.5	43.8	69.6	—	—	50.8	80.8	130.6
21	" 47048 . . .	48.4	77.0	63.1	100.3	40.4	64.2	—	—	50.6	80.4	130.1
22	" 47175 . . .	68.7	109.2	44.2	70.4	39.0	61.9	—	—	50.6	80.4	130.1
23	" 47071 . . .	50.4	80.1	—	—	—	—	—	—	50.4	80.1	129.6
24	Pignoletto d'oro . . .	—	—	50.2	79.8	—	—	—	—	50.2	79.8	129.0
25	P.S.I. 47099 . . .	55.6	88.3	53.1	84.4	41.0	65.2	—	—	49.9	79.3	128.3
26	" 47168 . . .	49.6	78.9	62.3	99.1	40.5	64.3	44.3	70.4	49.2	78.2	126.5
27	" 47180 . . .	45.5	72.3	57.6	91.6	42.0	66.8	—	—	48.4	77.0	124.4
28	" 47165 . . .	43.1	68.5	61.1	97.1	39.5	62.8	—	—	47.0	76.2	123.1
29	" 47159 . . .	61.1	97.1	40.3	64.1	41.7	66.3	—	—	47.7	75.8	122.6
30	" 47173 . . .	52.2	83.0	44.7	71.1	44.0	69.9	49.4	78.5	47.6	75.7	122.4
31	" 47169 . . .	46.7	74.3	58.6	90.1	39.3	61.5	—	—	47.5	75.5	122.1
32	" 47170 . . .	52.0	82.7	47.9	76.2	42.3	67.2	—	—	47.4	75.3	121.8
33	" 47047 . . .	52.6	83.6	46.2	73.5	43.2	68.7	—	—	47.3	75.1	121.6
34	" 47179 . . .	45.0	71.6	57.4	91.3	38.9	61.9	—	—	47.1	74.9	121.1
35	" 47058 . . .	46.2	73.5	—	—	—	—	—	—	46.2	73.5	118.8
36	P.S.I. 47164 . . .	42.6	67.7	52.4	83.3	39.2	62.3	47.3	75.1	45.4	72.2	116.7
37	" 47049 . . .	50.3	80.0	45.2	71.9	40.3	64.1	—	—	45.3	72.0	116.4
38	" 47072 . . .	44.6	70.9	—	—	—	—	—	—	44.6	70.9	114.6
39	" 47160 . . .	52.3	83.2	40.4	64.2	38.4	61.0	—	—	43.7	69.5	112.3
40	" 47057 . . .	42.3	67.3	—	—	—	—	—	—	42.3	67.3	108.7
41	" 47145 . . .	32.5	51.7	59.2	94.1	34.3	54.5	—	—	42.0	66.8	108.0
42	" 47204 . . .	41.5	66.0	—	—	—	—	—	—	41.5	66.0	106.7
43	" 47203 . . .	40.9	65.0	—	—	—	—	—	—	40.9	65.0	105.1
44	" 47126 . . .	34.5	54.9	45.1	71.7	41.4	65.9	—	—	40.3	64.4	103.6
45	" 47122 . . .	36.3	57.7	45.5	72.3	39.0	62.0	—	—	40.3	64.1	103.6
46	" 47055 . . .	40.1	63.8	—	—	—	—	—	—	40.1	63.8	103.1
47	Nostrano dell'Isola Average of the more yielding open- pollinated varie- ties	27.1	43.1	50.3	80.0	—	—	41.1	65.3	39.5	62.8	101.5
48	P.S.I. 47144 . . .	30.2	48.0	50.3	80.0	34.0	54.1	41.1	65.3	38.9	61.8	100.0
	Average of all the open-pollinated varie- ties	23.1	36.7	55.4	88.1	29.4	46.8	47.7	75.8	38.9	61.8	100.0
49	P.S.I. 47121 . . .	25.5	45.3	50.2	79.8	33.2	52.8	39.0	62.0	37.7	59.9	96.9
50	" 47124 . . .	33.2	52.8	45.7	72.7	34.3	54.5	—	—	37.7	59.9	96.9
51	Marano Vicentino P.S.I. 47127 . . .	37.7	59.9	—	—	—	—	36.9	58.7	37.7	59.9	94.9
52	" 47128 . . .	22.3	35.5	57.8	91.9	29.8	47.4	—	—	36.6	58.2	94.1
53	" 47123 . . .	36.0	57.2	—	—	—	—	—	—	36.0	57.2	92.3
54	" 47177 . . .	25.7	40.9	50.7	80.6	29.8	47.4	—	—	35.4	56.3	91.0
55	" 47167 . . .	22.5	35.8	46.5	73.8	32.0	50.9	38.3	60.9	34.8	55.3	89.4
56	" 47125 . . .	26.2	41.7	47.7	75.8	29.8	47.4	—	—	34.6	54.7	88.9
57	" 47178 . . .	29.7	47.2	—	—	38.9	61.9	—	—	34.2	54.5	88.2
58	" 47178 . . .	24.9	39.6	46.5	73.8	30.9	49.1	—	—	34.1	54.2	87.6
59	Maule's Mastodon Wisconsin gigante P.S.I. 47141 . . .	—	—	—	—	34.0	54.1	—	—	34.0	54.1	87.4
60	" 47176 . . .	20.6	32.8	46.9	74.6	32.5	51.6	—	—	32.5	51.6	83.5
61	" 47176 . . .	22.1	35.1	38.5	61.2	27.1	43.1	—	—	31.5	50.1	81.0
62	Pfister	30.2	48.0	—	—	—	—	35.6	56.6	30.2	48.0	77.6
63	P.S.I. 47143 . . .	13.0	28.6	36.4	57.9	34.2	54.4	—	—	29.5	46.9	75.8
64	" 47142 . . .	22.6	35.9	33.8	53.7	—	—	—	—	28.2	44.8	72.5
65	Seagliolo 23 A . . .	28.1	44.7	—	—	—	—	—	—	28.1	44.7	72.2
66	P.S.I. 47054 . . .	24.1	38.3	—	—	—	—	—	—	24.1	38.3	61.9
67												

* Plant Seed In-
troduction Number
registered at the Ber-
gamo Corn Experi-
ment Station.

Any difference
inferior to 3.0
qls. (4.8 bushels)
between the unit
yield of the two
entries is negli-
gible

Any difference
inferior to 3.3
qls. (5.2 bushels)
between the unit
yield of the two
entries is negli-
gible

Any difference
inferior to 4.3
qls. (6.8 bushels)
between the unit
yield of the two
entries is negli-
gible

Any difference
inferior to 2.1
qls. (3.3 bushels)
between the unit
yield of the two
entries is negli-
gible

at an elevation of 700 feet, in a dry area. The soil is alluvial, acid. The corn was never irrigated. The field was planted on 3 June and harvested on 15 September.

(b) Method of planting and measuring performance

67 entries were tested in randomized plots with four replications. The plots were two rows wide and 10 hills long. Five kernels were dropped in each hill and later the stand was thinned to three plants per hill. The best local open-pollinated varieties were located as tests in each yield-test and received the same cultural treatment.

The yield reported for each hybrid or variety is the average obtained for different tests expressed in quintals per hectare and in bushels per acre on a basis of 15.5% moisture percentage, and after having made the adjustment to stand.

All noteworthy difference was calculated for each plot by using the analytical procedure of analysis for variances.

Conclusions

(1) Hybrid corn varieties from the United States generally proved to have a good grade of adaptability to Italian environment, reaching yields even higher than the average yields obtained in the American Corn Belt.

(2) 86% of the hybrids tested at Bergamo (12 out of 14), 83% of the hybrids tested at

Aquileja (39 out of 47), 80% of the hybrids tested at Brembio (49 out of 61), 62% of the hybrids tested at Savigliano (29 out of 47) gave a yield higher than the one of the local standard variety adopted in each area as a comparison.

(3) The percentage increase in yield secured with the hybrids which gave the best performances are as follows: 36.8% increase at Bergamo, 42.9% increase at Savigliano, 62.2% increase at Aquileja and 127.3% increase at Brembio. Taking into account the significant differences, the increases in yield are not inferior to 32%, 36%, 54% and 117%. These percentage increases considerably exceed the conservative estimate increase of 20% mentioned in the final report submitted to UNRRA-Washington D. C. and to the Italian Ministry of Agriculture in December 1946 by the Director of the Italian Corn Experiment Station at Bergamo.

(4) The performance of the same hybrids varied greatly according to the various places, showing not infrequent cases of inversion and deformity together with several analogies, which on the other hand were to have been expected.

Having the support of the experimental data there is no longer reason for being hesitant about the way to be followed in maize-growing as this crop, through the new techniques, can greatly contribute to solving the food problem of our country.

LIVESTOCK BREEDING AND ANIMAL HUSBANDRY IN THE AMERICAN AND BRITISH ZONES OF GERMANY

by Prof. Dr.

L. KRÜGER

Frankfort

Germany is no longer in a condition to keep herself alive today, and still less to feed herself sufficiently. In peace time, 15 to 20 per cent. of the food consumed by man and livestock was imported. The situation is particularly difficult in the western areas. In the American and British zones the population has increased by 20 per cent. as against 7 per cent. in the Russian zone. In 1946 the cereal crops fell by 1/5th to 1/4th, the potato crop by one third, and the sugar-beet crop by one quarter. This year the unprecedented drought reduced the yield of the cereal crops by another 10 per cent., that of the coarse fodder crops and of part of the green forage crops to half and even less of the prewar yields. It is not yet possible to have a definitive idea of the enormous reduction in the potato and turnip crops, but it is certainly alarming.

Imports, smaller rations, a reduction in their fat and protein contents, a stricter control over the delivery of foodstuffs by the farmers, changes in the crops raised, the slaughter of a larger number of cattle, and an increase in production, such are the much criticized measures by means of which it is hoped to improve this very serious situation.

What part is played in this program by animal husbandry and stock-breeding in the British and American zones? This is the matter we wish to study briefly in this note.

Before the war the German population consumed an average of 3000 calories per day per inhabitant, of which 30 per cent. was of animal origin. So far it has been

possible to supply 1,500 calories for the normal adult consumer, of which 10 per cent. of animal origin. and 25 per cent. of this imported. The home production would only supply about 1000 calories.

In peace time, the world market supplied the whole territory of the Reich with 4 million tons of cereals. Today we are guaranteed 3.6 million tons. When we remember that meantime the world population has increased by 10 per cent., and that the production of rice in Asia and the crops in many countries are still below what they should be, Germany has undoubtedly received her share of world cereals. The efforts made by the Americans and by the British to help us in this respect should be appreciated at their right value. But it is none the less true that it is our duty to insist more especially on the need of proteins and fats of animal origin. In the opinion of nutrition experts a man needs a minimum of 50 to 60 gm. of first grade proteins and 30 to 50 gm. of fats per day. Consequently, before the war, Germany imported in addition to 4 million tons of cereals, a quantity of fats corresponding to a fat ration of 600 gm. over each period of distribution. Although the world market in 1947 could only avail itself of 50 to 60 per cent. of the volume of fats formerly at its service, it should be possible, by a renewed effort, to find on the world market a little more fat and oil for Germany. Our oil refineries and margarine factories are practically at a standstill, the milch cows are without oilcake, the pig-styes are empty. The difficulties in the way of heavier imports are serious and manifold.

Germany can only import what other countries make available for her, what the others do not need, those things for which they can allow us deferred payment and which we can pay for. Our distress forces us to harp continually on the need of imports.

To increase production we need fertilizers, selected seed, machines and implements, either new or repaired, feedingstuffs, labour, etc. Before the war, the per hectare yield of wheat in Germany stood at 2.1-2.2 metric tons. In 1946 Germany's crop amounted to 1.7 tons per hectare. The high German yields were the result of the great fertility of the soil and of conditions of cultivation which no longer exist, and which it is impossible to secure again for the time being.

Would it be possible to secure a marked improvement of the food situation in the bi-zone by modifying once more the crops and by slaughtering more cattle?

The answer to this question must be in the negative as long as it is impossible to make the necessary means for cultivation available to the farmers. An extension of root crops cannot be counted on to secure a definitively larger supply of food; what is needed is to raise the per unit yield. The yields have fallen 30, 40, 50 per cent. and even more. An alteration in the use of the areas cultivated cannot afford a remedy for such a situation.

But the increase of production depends on many preliminary conditions; it is tied up with economic relations; and runs up against many difficulties. The increase in the production of coal and steel increases the output of phosphates; a larger output of coal, iron, and railway rolling-stock and building materials, increases the production of potash. Every ton of coal brought to the nitrogen factories produces, thanks to the nitrogen thus obtained, wheat to a value which exceeds by 15 or 20 times the value of that obtained by the exchange between coal exports and wheat imports. In 1946-47 the supply of chemical fertilizers at the disposal of German agriculture was only half that available in 1938. For three years the production of iron, implements,

and machinery has practically ceased. Wear and tear is getting heavier and heavier. The lack of seed is severely felt, and there is none for feedingstuff crops and catch crops. In 1948 the great lack of seed-potatoes will be added to other shortages.

The feedingstuff situation: its importance for the soil and for livestock

One fifth of the high yields obtained by German animal husbandry was due to imports of cattle feed. Today these imports have ceased and the yield of the crops has fallen by 30 to 50 per cent. Of these crops, feedingstuff which can only be used by livestock is almost the only one available. These products have become a matter of prime importance. The plan for 1947-48 will entail, if the crops are normal, a loss of 8 per cent of starch and of 8.5 of proteins as compared to 1946. The disaster which overtook feedingstuff crops and root crops this year shows how dangerously unstable is the present agricultural equilibrium. Had the feedingstuff crops been sufficient, there would not have been a lack of humus, and had there been enough humus the damage caused by the drought would not have been so serious. This is clearly shown by the farms on which the layer of humus was adequate. Whether they be located in the plains of Cologne or in the crisis areas of Franconia, those farms which were rich in humus were able, even in 1947, to deliver more cereals per unit area than the average farms of the same communities delivered in 1946.

Just as the utilization of nourishing foods by livestock has become a matter of prime importance, so the question of the fertilizing of the soil by animal manure has become a fundamental problem.

It seems a platitude to say that livestock and soil can be impoverished much more quickly than they can be restored. We must start from the bottom in agriculture, that is to say, from soil fertility. Manure plays a decisive part in an agriculture which has become almost extensive. After long years of exhaustive farming, the soil is now impoverished. Under

such conditions one cannot hope to obtain a higher number of calories by merely enlarging the area of root crops; certainly it will not be possible to obtain such a quantity as would allow us to attain prewar figures by multiplying area by yield.

Increasing the production of edible tubers and roots and of field vegetables at the expense of feedingstuffs and of straw, only destroys the conditions on which such production depends.

What should be ploughed up are the poor grasslands, and that without loss of time. We should not reduce the area of arable lands supplying coarse freedingstuffs and green feedingstuffs, but the poor grasslands. Feedingstuff cereals which can be replaced by feedingstuff grown on the farm and yielding higher returns per unit of land, should also disappear, but not the feedingstuff crops grown on arable lands which are needed to correct the looseness of the soil and to assure the production of manure.

Care for the fertility of the soil should take precedence of every other consideration. It is essential to see that the kind of feedingstuff and livestock be such as to secure the necessary quantities of manure. Only later on will it be possible to take steps to secure the necessary quantities of proteins of a high biological value and of fats.

It is much to be regretted that it is so, but our conditions allow of no other conclusion.

In the third place, there is the peasant's concern for his livestock from the point of view of the capital investment it represents. For many farmers, their livestock has not only been a means of production, but has always represented a reserve of productive capacity and the basis of their financial solvency. No one can blame the peasant for being tenaciously attached to his cattle.

All through last autumn and winter the livestock dwindled away steadily. The scarcity of feedingstuffs inexorably silences all scruples and defeats all good intentions. Many stables today contain barely one fifth of their former numbers. Let us hope that the animals will be slaughtered in accordance with a methodical plan and not precipitately.

The herd must be adjusted to the available supply of winter feedingstuffs. As far as possible, the number of productive and fertile females should be left intact. Farms with good supplies of feedingstuff should get rid of superfluous mouths and replace them by productive animals. Diseased animals and those of low productivity are useless mouths. Young animals which will only yield returns in a few years time must not be allowed now to deprive productive and fertile animals of the feed they need. The danger represented by the over-aging of the herds must be put up with for the present; it is a lesser evil. The chief aim now must be to preserve productive animals, worthy of entry in the herd books and to keep the draught animals alive that are needed on the farms.

It will be difficult to replace the large sized animals which are now sacrificed because of the lack of feedingstuffs and it will take long years before this can be done. It takes at least five years to form a complete herd. The large scale importation of animals is out of the question; even in peace time, imports did not play any important part.

But the slaughter of the animals must not lead to the waste of irreplaceable foodstuffs. It is bad enough that the capital of the farmer should be dissipated by the slaughter of his livestock. The animals must be slaughtered when they have attained their maximum weight and before they have begun to grow thin.

In some districts only, the rain fell at the right time. Many farms find themselves entering on the winter season with stocks of flour already reduced and their silos empty. The small dairy farms should get rid first of all of the young animals which under present conditions would always be more or less unsatisfactory.

Of course the possibility of importing has also been taken into consideration. The proposal has been made:

(1) to import oilcakes and use them for manufacturing margarine and concentrated feeds. The latter would increase the fat content of the milk;

(2) to import feedingstuffs for fattening pigs which would supply hams of prime

quality and sausage meat specialties with which to pay the imports, while the second rate meat and fat would be consumed by the German public. Two million pigs thus fattened would supply, over and above the exported products, 170 gm. of meat to German consumers during the marketing season ;

(3) to import cattle at the beginning of the green feedingstuff season and then exchange it for fats.

The opportunities for such imports, are however, uncertain.

The possibility of obtaining a larger production of bran has also been considered. Grain bolted at 97 per cent. instead of 87 per cent, contains 10 per cent. of bran which only surfeits a man but could be fed to cows as a productive ration. It would thus be possible to obtain 30 kg. of milk per consumer per annum. But as during the coming winter there will not be sufficient potatoes to satiate the people, it will undoubtedly not be possible to give up bran as human food unless imports relieve the situation, which from the standpoint of world economy would be better all round.

The output of industrial feeds, such as yeasts, starches, etc., is another solution which should be considered. But all these proposals require time before they can be put into effect.

Straw this winter (1947) will have to be used for feed and not for litter.

Yields

Without concentrated feeds and with only 80 per cent. of the feedingstuff crops produced on the farms from 1934 to 1939, the annual milk yield in 1946 was only 50 to 60 per cent. of that obtained from 1936 to 1939. In the months of August and September the yield was, moreover, already inferior to that obtained in the corresponding months of 1946. The fat content has only been lowered a little in some cases. The yield of the stock entered on the herd-books has not diminished so much proportionately. This shows what can be obtained from herds of good quality thanks to a good management of the feedingstuffs given them, together with good care and skilled management. Nothing should be neglected to

maintain the supply of milk at the high est possible level. Milk is almost the only source of fat and is, moreover, a food rich in proteins of high value. The elimination of the animals consuming feedingstuffs and unable to supply milk, the methodical organization of the production and consumption of fodder, the use of the residual products of milk, the economies to be introduced into stock breeding, are all measures which should be made use of in the most scientific way possible.

What is now causing anxiety is not so much the possibility of producing meat in amounts equivalent to a ration of 400 gm., but rather the need of building up a reserve without incurring waste. We are now living on our capital. In spring there will be a shortage of meat, reserves must therefore be built up. All the cold-storage plants and canning factories are being used to the utmost limit. It would also undoubtedly be possible to distribute rations in advance, but the rations are so small that it cannot be expected that the families would be able to set aside reserves, and the possibility of forming reserves in the butchers' shops is also a measure which must be regarded with much scepticism.

Young heifers and steers on the one hand, and old cattle on the other are now the principal sources of our meat supply. The pigs barely cover the consumption needs of the breeders ; mutton and horse-flesh provide one tenth of our insignificant meat ration. An increase in the live weight of 300 gm. per day would assure a ration of 300 gm. per distributing period. A daily increase of 400 gm. would ensure a ration of about 350 gm. All the feedingstuff produced should be fed to the milch cows. The utility of such use is greater than that of feedingstuff used for fattening.

In the case of eggs from 23 to 28 were obtained from each hen during the last agricultural year.

Reduction of the herds and the stockbreeding situation

In June 1947 the number of horned cattle in the American and British zones amounted to 9,743,000 head, 8 per cent. less than in

1938, but still more than the number on farms in 1913. The livestock in the British zone has fallen off by 10.45 per cent., in the American zone by 5.6 per cent. A large reduction is now taking place in the American zone. The number of milch cows has declined by 4 per cent. In 1938, cows accounted for 48 per cent. of the herds, in 1947 the figure stood at 50 per cent. The northern section of the Rhineland (Nordrhein-Westphalen) has 13 per cent. fewer milch cows than in 1938. The number of heifers has increased by 10 per cent. while in Schleswig-Holstein the figure is 55 per cent. higher than in 1938. Heifers which have not yet had their first calf, account for 15 per cent. of the number of cows in general and in Schleswig-Holstein for 25 per cent. The young cattle from 3 months to two years old account for 46 per cent. of the number of cows.

This goes to show that stock has not been slaughtered thoughtlessly. Let us hope that whenever animals are to be slaughtered their yield rather than their live weight will be taken into consideration. An inventory of winter feedingstuffs necessary for draught animals and horses should be drawn up.

Productive and fertile cows and heifers in calf should be preserved as far as possible so that when the green feedingstuff season comes around there may be both freshened cows, and those promising future yields, on hand.

Before winter arrives (1947), the number of animals must be brought into line with the amount of feedingstuffs available; this task will involve a big effort on the part of the authorities, the organizations and the transport services involved.

The young animals should be thin, they should be small eaters; their development in a poor environment should demonstrate what their worth can be until better times arrive.

Statistics show the same number of horses as in 1938; *i. e.*, 1.4 million. Compared with that year the number of horses from 5-9 years has increased 85 per cent. in the British zone; in the Schleswig-Holstein zone the number has increased 119 per cent. There is a drop of 60 per cent., on the other hand, in the

number of horses over 14 years of age. There are therefore more young animals among the horses in the British zone than ever before which cannot fail to be a source of satisfaction to the farmer. In the American zone the proportion of old horses out of the total number is one to five. The proportion of 30 to 35 weaned colts per 100 mares is not very satisfactory.

In some areas the presence of horses which are the property of refugees from other zones, the increase of horse-breeding in cities, losses caused through the war and many other factors have had an unfavourable effect on the average quality and on the proportion of farm animals to the total number.

But in such changeable times as these, statistics are not sufficiently reliable to enable a comparison to be made with former times.

The keeping of horses elsewhere than on farms has increased considerably. To judge from the amount of feedingstuff vouchers issued alone, there are 63,000 horses being used in trade and industry. All these horses depend on agriculture for food.

Thoroughbreds comprise 1000 racehorses and 3,200 trotting horses. Most of the best stables for German thoroughbreds are in the Western zones.

Sheep numbers have held up well in spite of reductions. In June 1947 there were 240,000 sheep; 4.5 per cent. more than before the war. Ewes have increased by 19 per cent. compared with the pre-war period if the whole of the country is included in the calculations; they have increased 59 per cent. in Nordrhein-Westfalen. The proportion of ewes to other sheep has risen from 48 per cent. to 55 per cent., the present figure. The number of lambs born during the year and their proportion out of the total number is, however, far from satisfactory. Only about 60 per cent. of the ewes dropped lambs. Slaughtering 30 per cent. of the sheep in December 1946, or around 600,000 head, would bring the total number of sheep down to the pre-war winter figure. The number of small sheep-raising farms has considerably increased. On these none of the farmers are prepared to slaughter sheep in order to cut the numbers down to the 1938

figure. But the peasants' sheep-farm and individual flocks cannot provide alone the prescribed 600,000 head of sheep to be slaughtered. It would be a mistake to slaughter now more sheep than those which have been freely offered. They still find enough to eat. More than 80-90 per cent. sheep live off feedingstuffs that can only be consumed by them. The sheep should not be slaughtered until the last autumn grazing grounds have been used up. Experience has taught us that when the weather is fairly favourable sheep maintain their weight until the month of November.

According to instructions issued the number of swine must be cut down until the number remaining conforms to the individual needs of raisers and the amount required for the consumption of garbage from big cities. There were 4,600,000 head altogether in June 1947, 54 per cent. less than in the period 1935-39 but 680,000 more, however, than foreseen by the slaughtering plan. There were altogether 718,000 sows, 28 per cent. less than in 1935 and still 218,000 too many since no more than 500,000 are to be preserved. In Southern Germany sows have increased by 20 per cent., in the British zone, on the contrary, they have dropped by 48 per cent. Only the individual needs of raisers are to be met in the North-western pig-export area of Germany.

There are 890,000 goats, an increase of 17 per cent., and 21 million chickens, an increase of 53 per cent. Such rabbits as are included in the statistics number 6,400,000, twice the amount as there were in the pre-war period. Bee production had dropped by 30 per cent. but it is picking up again. Food is lacking for fur-bearing animals and silkworms. Kennels are flourishing at the present time.

The position of animal husbandry

Livestock will have been reduced 10% by the end of the year. Up until now animal husbandry has always been able to renew stock perfectly easily. The breeding of thoroughbred stock has remained unchanged and weathers all storms. But can disintegration of the stock be avoided even here?

By carrying out their former aims breeders have, on the whole, created the conditions necessary for dealing with the new issues. New conditions force the breeder, more than ever before, to lay still more emphasis than in the past on high yields combined with low maintenance cost for feedingstuffs and good use of them. Much work remains to be done, constantly and quietly, before the future can be faced with any degree of security.

Animal husbandry associations are very active everywhere. Often, unfortunately, the sad and irreplaceable loss of the herdbooks and registers must be deplored.

A new tendency, slow but certain, towards lighter animals, healthy and productive cattle that make good use of their food (so far as is ascertainable) and that carry a high percentage of fat is developing independently of the need for reducing the present number of cattle. Remarkable results in increasing the percentage of fat have been obtained by animal husbandry, using cattle from Western Friesland. Bad times have necessitated the reduction in the number of cattle.

The rearing of young animals is in danger and to carry it on efficiently has become quite a feat. Milk and concentrated feedingstuffs are lacking. Prices are still high for top quality cattle but such cattle are rare and those farmers who are lucky enough to own any cattle often lose more money through the new tax than they make on the breeding stock.

The dairy industry will have to work on still more rational lines. To do this the industry needs healthy and productive animals and must take steps to eliminate completely all those animals which eat up feedingstuffs without giving a comparable yield, a low proportion of young stock born late in the season and herds with few young animals and little breeding stock must be aimed at. Food must be allotted according to yield, waste of feedingstuffs must be avoided by the use of green feedingstuffs in spring, summer and autumn, and the green feedingstuff season must be extended before and after winter by means of provisional feedingstuffs and fallow crops. Cows should be milked three times a day and not more than 2-300 litres of whole milk should be used to rear each calf.

As much food as possible should be procured for the livestock and this food should be protected against loss in storage. But a rational dairy industry requires above all a greater amount of yield-producing rations than have been available in the past.

Dairy control of milch cows is still extensively carried out. In some places it was never interrupted except for a brief period in 1945. The establishment of the requisite fatty content in milk meets with difficulties everywhere. It is greatly feared that dairy control may be misused; it suffers from declining yields and the supply problem. Dairy control is necessary and indispensable to animal husbandry, since it is based on proved yields. But the control of yields is useless unless results are accurate and comparable. If all interested parties work together animal husbandry should be able to continue carrying out a faultless dairy control and indicate bad suppliers.

Cattle breeding and rearing was always a very important branch of German agriculture. To-day it is still more important than any other form of husbandry. The provision of meats and fats, the fertility of the soil and the income of the farmers depend entirely on the breeding and rearing of cattle, this, in turn, depends absolutely on harvests and feedingstuffs.

Horse breeding and rearing can continue perfectly well in spite of the loss of the Eastern areas; it has, in fact, remarkably well overcome the difficulties of recent years. The number of mares listed in the Stud-Books is greater, on the whole, than before the war. Even the East Prussia Stud-Book Association is reorganizing itself and is gathering together breeding material in order that the valuable strain which has special qualities of resistance and good disposition may be preserved.

Some areas have undergone changes. Western Hanover and a large part of Holstein now go in for heavy draught animals, Hessian breeders of half-thoroughbreds have once again abandoned the Holstein type that they bred for some time and have turned towards the Oldenburg type. Wurtemberg can no longer import Anglo-Norman horses. The breeding of very heavy draught horses is being more and more confined to the area where the Rhenish farm

waggon is still in use. Interest in small horses has reawakened to a certain extent.

Half-thoroughbreds for heavy work and general purposes and swift and not too heavy work horses are usually the most sought after animals. The effects of the war will be felt by them also. Breeding material which is no longer so sought after is superseded or absorbed by these two principal strains.

Brood mares that have been successfully tested in their 'Land' are retained. The foals born during the past year in the 'Länder' of the British zone are satisfactory even though in many areas the requisite feedingstuffs were lacking. In many parts of Southern Germany on the other hand, breeding results have been far from satisfactory.

The question of cutting down the number of draught horses by 20% and replacing them by tractors has been taken into consideration too soon. Such a question is unrealistic so long as all peasant farms only acquire a new iron ploughshare every hundred years and milk lorries are held up for lack of tires. The slogan for the future is motorized plus horse traction. The more intensive farming becomes the greater the need will be for motorized equipment, but the number of horses will not be reduced to the same extent as can be seen from developments that took place in the United States. At the present time farmers are glad of every horse they can lay their hands on and industry is constantly demanding more horses. It is likely that in some areas oxen could be used more often and to greater advantage where the necessary labour is available as this type of rig requires more time than others in which to do a specific piece of work.

The change which must take place in the feeding of the horses is the most important factor at the moment. It must consist from now on of feedingstuffs which are grown on the farm and must fulfill the requirements of a rational use of food. This involves a high sense of duty and consciousness from those who are in charge of the horses. Hay, especially the better quality, must be kept for mares in foal and for milch cows and for their progeny. Under normal conditions working animals can manage with wheat-straw.

The rearing, distribution and use of sires, the upkeep of stallions, performance tests, diffusion of information on equine problems, care of hoofs and general health problems, the battle against sterility, and breeding-stud management problems are all tasks that have been carried on by horse-breeding associations with great skill, energy, and with continuity of thought and which have been accomplished successfully.

In spite of the numerical decline pig-breeding has at least preserved the best strains and those pigs which have survived are fine animals. Pork rather than beef was the principal German meat in peace time. A heavier production of pork and beef can alone provide us with a minimum amount of fat and meat. Heavier harvests and imports of feedingstuffs are required to increase production. The poor 1947 harvest is scarcely sufficient to provide the farmer with the requisite feedingstuffs for his remaining livestock. An increase in the number of pigs cannot be contemplated at present without imports. Pigs consume food destined either for human use or for cattle. This is a hard problem to solve. On many farms pig-breeding and fattening constituted a real income.

Concerning sheep the number of small raisers has greatly increased. These raisers have not been tussy over quality and the average has suffered thereby. In Lower Saxony, and especially in Nordrhein-Westfalen, the strains entered in the Herdbook have noticeably deteriorated. There is a great demand for breeding and all-purpose animals. Milch sheep cannot be found. The increased rural population and the attempt of consumers to fill their own needs by home production have ravoured the purchase of milch sheep. The increase in pasture and sheepfolds is a source of satisfaction.

A heavy task devolves on the Western zone breeders of animals listed in the Herdbooks on account of the losses of many fine breeding farms in Eastern Germany. This is especially so in the case of Merino sheep. The increase of their output in wool and meat, the improvement of their fertility, health problems and the regulation of grazing conditions appear to be the most pressing tasks.

In so far as goats are concerned the demand for breeding and all-purpose animals cannot be met. There is special cause for worry concerning difficulties involved in the rearing of kids and the upkeep of billygoats.

In general the quality and yield of hens on farms has fallen. Too few chicks are reared and the stock become over age. Breeders of strains listed in the registers remain true to the principle of yield and, in so far as the feedingstuffs available allow them to, they increase their stock.

About 60% of the rabbit breeding stock has been lost. The total number of rabbits, is nevertheless twice what it was in 1938. Waste of feedingstuffs and skins could be reduced by increasing the number of breeders' associations. A lack of good breeding stock is also felt in this branch.

A hard struggle is under way to continue fish-hatching. Fish is lacking and so is food, equipment is not replaced and the ponds are no longer stocked.

Silkworm-breeding continues to decline whereas beekeeping, on the contrary, has increased. If only a little more feedingstuffs were available, fur-bearing animals could be reared and this would serve to bring into the country some of the so greatly needed foreign currencies.

Some present-day problems

Public authorities and organizations have helped the breeders as much as they possibly could. The work of the breeding offices and of the inspections will become more and more necessary as times grow harder. Unfortunately some of these offices are not yet sufficiently staffed. In many cases where offices were emptied organizations came to the rescue of the breeders and enabled them to carry on in difficult times. Management was in their hands in the transition period and they took care of the most pressing problems and acted in the best interests of breeding throughout the country. The private organizations of individual breeders will play a great part in future developments and will point out the way which must be taken.

While recognizing the importance of the work of the selection associations one should, however, recall that breeding is carried on all over the country and that animals suitable for reproducing their species can be found everywhere. Any animal that can contribute to the improvement of a strain is useful, for breeding purposes. Where the blood lines are poor, then the yield of the animal ought to be high.

Yield tests remain necessary as before. The voluntary accounts of yield tests, the continuation of testing in pig and sheep breeding, the renewal of draught power tests in Hesse horse-breeding should be praised.

The carrying out of artificial insemination should, from now on, be directed by some official body. It is not a question of economy in the use of sires but of handing on of rare and really excellent hereditary qualities. Outstanding sires are rare. Only those animals whose genetic value has been proved to be exceptional by the yields of their progeny should be used as sperm donors for artificial insemination. By means of artificial insemination a bull may get about 5000 calves a year instead of 80 to 100. There is also the danger that hereditary qualities may become impoverished. Non-controlled artificial insemination centres should be abolished and the fight against venereal disease should be a concomitant of artificial insemination.

Our age is propitious to the spread of disease. The state of animal health may still be considered to be good in spite of bad living conditions and a greater incidence of tuberculosis, sterility and rearing diseases, the lack of medicines and veterinary equipment, but these have already affected the state of animal health. The government and the associations are working with all the means available. In some districts more than 70% of the animals tested for tuberculosis have given a positive reaction. The difficulties that lie in the path of the finding and doing away with all cases of open tuberculosis, the isolation of animals which are

reactors and their rearing apart from the others, are in some cases insuperable. The numbers of sound cattle can only be built up gradually.

Prices for animal products are, on the whole, inadequate. They may be considered from widely divergent viewpoints. Two facts arise in particular:

(1) Price relationships,

(2) The gradual rise of prices to inflationary levels. The prices of dairy and beef cattle are responsible for 50% of the income of the average farm. Dairy and beef cattle have long been undervalued. The price gap is too wide. Expenses have gone up, taxes have increased, sales have dropped. 1947 has added its toll of disasters. Farmers can no longer make two ends meet by honest toil. In the long run no one can spend more than he earns. Many people consider that this is not the time to discuss the price question, but to us, on the contrary, it seems necessary. Healthy price relationships must be established finally before the currency is stabilized, before and not afterwards. The farmer is content if his products have once again the same barter value that they had in 1913.

The nearer one gets to the frontiers the higher are the black market prices for breeding and all-purpose cattle. In the Anglo-American zone there are no more cattle left for sale; all that remains is paper money which no longer has any value outside of Germany. The unknown farmers and dealers who engage in these sales contribute to the downfall of the currency. These activities are hastening an untimely solution of the currency problem. What is now taking place may become an avalanche which will slide down the slope of inflation dragging with it profit margins and burying beneath it real property. So far only a very small proportion of the population is involved in these activities, the core of the farming classes and the greater proportion of the population are still exempt from participation.

FOURTH MEETING OF THE FAO EUROPEAN NATIONAL COMMITTEES

(Rome, 17-21 February 1948)

Organization of the Meeting

The Fourth Meeting of the FAO European National Committees was held at Villa Borghese, Rome, 17 to 21 February 1948; Sir John Boyd Orr, Director-General of the Organization, presided. The following sixteen European member countries sent delegates: Austria, Czechoslovakia, Belgium, Denmark, France, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Switzerland and the United Kingdom. Bulgaria, Finland, Turkey, the United States and the Vatican sent observers. A proof of the growing importance of FAO in Europe was given by Italy and the Benelux countries (Belgium, Luxembourg, the Netherlands) sending their Ministers of Agriculture as delegates to the Meeting.

The Meeting, under the chairmanship of Mr. M. Margue, Minister of Agriculture for Luxembourg, entrusted the study of the problems enumerated in the Agenda to three Committees: Committee I, Functions and Organization of the Regional Office, Chairman Mr. F. T. Wahlen (Switzerland); Committee II, Technical problems, Chairman Mr. A. Sibelka-Perleberg (Hungary); Committee III, Administration of joint FAO-UNRRA program, Chairman Mr. S. Krolikowski (Poland).

The Agenda included the study of the program and organization of FAO work in Europe in 1948, with reference to the re-orientation consequent on the establishment of the World Food Council; also on the Agenda was a study of the relationship of FAO with other international organizations in Europe; finally the National Committees were to receive reports on the work of

the temporary European Office since the Third Meeting of the National Committees in July 1947.

General regional policy

The object of the Meeting was not to discuss the general situation of agriculture and nutrition in Europe and the main emphasis was laid on the means by which the state of affairs can be improved. Concerning this the National Committees unanimously stressed the urgent need of hastening the reconstruction of European agriculture on a basis of complete equality and parity between all FAO member nations so that the economic unity of Europe may be preserved. The Meeting considered that the economic and technical problems of Europe needed to be considered on a specifically regional basis. These problems include mainly agricultural production, distribution and consumption of the products of agriculture, fisheries and forests, as well as of certain other food products.



Sir John Boyd Orr, Director General of FAO, makes his opening speech at the Fourth Meeting of the European FAO National Committees. At his left is Mr. S. L. Louwes, Special Adviser to the Director General, and Mr. A. van Houtte, Secretary to the Conference; at his right is Mr. M. Veillet-Lavallée, Chief Executive Officer of FAO.

With this end in view FAO must continue to cooperate as closely as possible with all the other specialized organizations of the United Nations, the Economic and Social Council, and with its regional Committees. In this field collaboration with the Economic Commission for Europe (ECE) has enabled considerable progress to be made in the study of European agricultural problems and in the preparation of programs for their reconstruction.

During the discussion consideration was given to a program of activities in the light of the work hitherto carried out by the former International Institute of Agriculture and by the Temporary European Office as well as to the recommendations made by previous Meetings. The Meeting felt that the highest priority should be given to economic and technical activities which will result in a speedy increase of food production in Europe such as :

- stepping-up of the availability and application of such technical means of production as fertilizers, insecticides, etc.,

- combating plant and animal diseases and pests, combating losses and wastage of food and feedingstuffs, especially during storage,

- developing marketing, preservation, processing, storage and transport facilities of perishable commodities,

- improving the distribution of food of special importance to children, such as milk.

The Meeting recommended, along general lines, that measures should be taken quickly to increase agricultural production in 1948, so that equally good results might be obtained in 1949 and 1950. Technical help and advice will be given by the Organization to European countries that request it and as great a use as possible will be made of continental resources.

In order to coordinate FAO activities in Europe the Meeting asked that a strong Regional Office should be established in Europe and recommended that it should be located in Rome where, thanks to the generous offer of the Italian Government, the Organization may make use of the buildings and library of the former International Institute of Agriculture. Liaison and technical services will be set up in Geneva to cooperate with the other specialized organizations of the United Nations and with other international institutions.

The Meeting requested that, subject to the approval of their respective governments, the geographical extent of the activities of the European regional Office should include the African dependencies of Belgium, France, Great Britain and Portugal.

Finally, after seeing a report, drafted by a study group in December 1947, on the functions and organization of National Committees, the Meeting recommended that putting a study of the statutes, composition and functions of the National Committees on the Agenda of the next session of the Conference be considered.

Technical questions

The Meeting recommended that the European Office continue its works in the field of *information*, documentation, films and radio. The National Committees expressed the wish that publication of the FAO 'European Bulletin' be continued.

The Meeting made a certain number of recommendations concerning the technical activities of the European Office which may be resumed as follows:

The National Committees in considering the importance of *agricultural engineering*, especially on small and medium farms, requested that the European Office should continue its efforts towards



Left to right : M. Gillon, Director of Administration of Agricultural Services in Luxembourg, M. Margue, Minister of Agriculture in Luxembourg, chairman of the conference, Mr. S. L. Marshall, Minister of Agriculture in the Netherlands, M. Orban, Minister of Agriculture in Belgium, Sir John Boyd Orr, Director General of FAO, and Sig. A. Segni, Minister of Agriculture in Italy.

the establishment of National Farm Machinery Centres which will cooperate with government bodies in the preparation of plans for the most efficient use of farm machinery.

After taking note of the report presented by the preliminary meeting of experts for the *standardization of milk and butterfat recording* in Europe, the Meeting recommended that this report be submitted by the FAO European Office to Member Governments through the National FAO Committees with the request that the latter send in remarks and suggestions. On the basis of these answers the Rome Office will prepare a text which will be sent to governments concerned and to recording associations in order that a comparable degree of standardization may be reached and adequate control ensured.

The Meeting considered that *artificial insemination* was becoming ever more widely used in Europe and several National Committees were in favour of eventually setting up a system of uniform regulations governing the shipment of semen. The Meeting recommended that an enquiry be prepared by the European Office concerning the status of legislation within each country governing these shipments and expressed the wish that a FAO representative attend the meeting of the International Congress on Physiopathology of Reproduction which will be held in Milan in June 1948.

The Meeting also took note of the resolutions passed at the International Meeting on *Animal Husbandry* (Zurich, October 1947) and expressed its agreement with the project of setting up an International Animal Husbandry Association. To fulfil a wish expressed at the Zurich Meeting, the Meeting recommended that the FAO European Office provide the secretariat of the Organizing Committee of the International Animal Husbandry Association on a temporary basis and during the provisional organizing period. The National Committees approved the efforts made by FAO towards the *unification of herdbook keeping* but they considered it inadvisable at the present time, however, to revive the International Convention for the Standardization of Methods of Keeping and Operating Herdbooks which was signed in Rome, 14 October 1936. The Meeting considered that modifying

the Convention should await the outcome of previously obtained results in the standardization of milk-butterfat recording and in the practice of artificial insemination.

The delegates were particularly interested in the problems of the *dairy industry* because of the urgency of providing milk, in liquid or other forms, to European children from one to four years old. With this end in view the Meeting suggested that joint action with the United Nations International Children's Emergency Fund, ICEF, be taken in preparing a program of milk production and processing, with the help of milk producing countries, with the object of covering the requirements of 30 million young children in the years 1948 and 1949.

After taking note that a meeting of experts on *horticultural* problems would be held in Rome, 17 March, the National Committees recommended that the European Office ask the International Wine Office, Paris (Office International du Vin) to supply information on raisins, to be included in the Report on horticultural problems.

The Meeting then approved the European Office's Report on the Present State of *Farm Accountancy Activity*, the Report on *Fishery* Problems and the Report regarding the distribution of varieties of hybrid maize and plans for the cooperation between countries interested in the *hybridization of maize*. The Meeting recommended that the studies and the work undertaken in these fields be continued by the European Office.

The question of *Long-range Weather Forecasts* was examined by the delegates who considered it



Visit to model farm in the Roman Campagna.

of utmost importance to farmers. Thus the Meeting recommended that FAO get into touch with the International Meteorological Office with a view to organizing regular broadcasts of practical up-to-the-minute advice to farmers, based on long-range weather forecasts.

Finally the Meeting recommended that the European Office promote cooperation between member countries in the field of plant production, breeding and testing and that it give similar attention to plant disease and pest control.

Joint UNRRA-FAO Field Services Program

The Meeting recommended that FAO should continue to provide for those countries who are eligible under the terms of the UNRRA-FAO agreement such services requested by those countries, in the shape of schools in the field of food and agriculture or by sending specialists recruited to work with these countries for a certain period of time. In the organization of the program priority should be given to schools on the preservation of foodstuffs and their protection against

insect pests. The Meeting considered that these schools should take the form of continuous activity and recommended that the Regional Office organize them in all fields relating to food and agriculture.

The National Committees suggested the provision of fellowships which would permit food and agriculture experts to acquaint themselves with the scientific and administrative techniques used abroad so that they could then introduce these methods into their own countries. The meeting recommended that the Director-General should approach UNRRA for additional funds for setting up advisory services and schools, for the distribution of scientific publications and for the organization of training trips abroad for experts.

Outside Activities

During the Meeting the delegates of the National Committees had the opportunity of visiting farms (sheep and vegetable) and vineyards in the Roman Campagna as well as the farms at Castelgandolfo which belong to Vatican City.

We give below the facsimile (in his own handiwriting) of the speech addressed by His Holiness Pope Pius XII on the occasion of a special audience which he accorded the Delegates to the 4th National Committee Meeting :

De ~~notre~~ Notre côté, il Nous plaît de reconnaître et de louer l'ampleur de vues qui a inspiré à l'Organisation des Nations unies et dessiné le plan de votre institution spécialisée pour l'alimentation et l'agriculture, la largeur d'âme qui en caractérise l'économie et l'application, la sagesse, enfin et la méthode avisée qui préside à sa réalisation, en sorte que les efforts de chacune des nations, conjugués tous ensemble dans la mesure du possible, pourvoient, avec plus d'efficacité, au soulagement et au bien-être de toutes par l'accroissement, la mise en oeuvre, l'utilisation opportune de leurs ressources respectives.

En travaillant, comme vous le faites, à intensifier et équilibrer la production et la répartition de tous les ^{(produits alimentaires et agricoles,} ~~biens~~), qui peuvent promouvoir le progrès économique général, vous ^{(contribuez à affranchir} ~~affranchissez~~ les nations de l'angoisse où les met la disette, de l'humiliation qu'elles subiraient à quérir l'aumône, vous les rendez toutes réciproquement et solidement bénéficiaires et bienfaitrices les unes des autres.

Il n'est que juste de viser avec ~~une~~ un particulier intérêt à l'amélioration des conditions de vie dans les populations rurales qui, pourvu qu'elles soient diligentes de ~~partant~~ toute la communauté dans les années prospères, et agissent même, par leur labeur, de cette prospérité, sont pourtant les premières victimes de la pénurie causée par le caprice des saisons, par les ^{(d'inéluctable,} ~~de la guerre, qui, en certaines années, ont laissé pour longtemps~~ ~~navages de la guerre qui ont épuisé le sol nourricier)~~ par les malaises et les complications de l'économie.

During a special audience which he granted to the delegates, Pope Pius XII made an address of which the following is an extract : « We are pleased to acknowledge and praise the width of vision which has inspired the Organization of the United Nations and conceived the plan of your specialized institution for food and agriculture, the generosity which is characteristic of its economy and the tenacity, the wisdom even, and the careful method which controls its carrying out, in such a way that the efforts of each nation, working one with the other as far as possible, can more efficiently provide for the help and well-being of all by the growth, the putting into action and the suitable utilization of their respective resources.

In working as you do to increase and stabilize the production and distribution of all food and agricul-

tural products which can promote an all-round economic development, you contribute to freeing the people of the world from the anguish of want and the humiliation they would feel at asking for charity ; you make them all reciprocal benefactors and beneficiaries of each other.

It is only right that particular interest should be taken in the improvement of the living conditions of countryfolk who provide diligently for all in good years and who, though they and their labour are the cause of such prosperity, are, nevertheless, the first victims of the hardships wrought by a freak of weather, by the havoc of war which, in many countries, has left the earth barren and unworkable, and by the evils and the complications of the economic system ».

ITEMS OF INFORMATION

The exclusive drawings which illustrate this Review are the work of the Italian sculptor Francesco COCCIA, Professor of the Faculty of Architecture at Rome University, and Ministerial Councillor of Fine Arts in the City of Rome. He won the competition for the monument to be built in honour of the martyrs of the Ardeatine Caves near the Appian Way.

NUTRITION



Expert Advice on Child Nutrition

In the first two issues (January and February) of 1948, its second year of publication, the "Chronicle of the World Health Organization" gives information which would be of interest to our readers.

The January number contains news of the Report of a Joint FAO-WHO Committee on Child Nutrition, which met in Washington from 23-26 July, 1947, and was composed of doctors and nutrition experts with wide knowledge and experience of world problems of child nutrition. Printed copies of their Report will soon be available in English, French, Spanish, Russian and Chinese.

The Committee was asked by the United Nations International Children's Emergency Fund (ICEF) to give attention to the basic principles of nutrition in planning the purchase and distribution of food-stuffs, and in the development of feeding programmes for pregnant women, nursing mothers, infants and pre-school children, children of school-age and adolescents; and to take into specific consideration, the use of cheese, dried whole and skim milk; vitamin-containing foods as opposed to concentrates, and hot cooked meals in preference to cold meals, such as the 'Oslo Breakfast', etc.

The Committee dealt fully with the problem of the nutrition of pregnant and nursing women, from the viewpoint of the relation between maternal and infant nutrition, from that of a selection

of foods to meet the nutritive requirements of pregnant and lactating women, and from that of the importance of breast-feeding.

The main points of the recommendations resulting from this study may be summarized as follows:

Pregnant women and nursing mothers, and children of all ages are in need of supplementary feeding in the countries with which ICEF is likely to be concerned.

Feeding programmes should aim, except in the case of infants, at supplying about a third of the minimum calorie recommendations given in the Appendix to the report.

Attempts should be made to provide one litre of milk daily for all pregnant women and nursing-mothers. The provision of smaller quantities than 600 cc. may seriously affect the weight and health of infants.

Dried whole milk should be provided for babies under 1 year of age, who are in need of milk. Babies above this age who are below 8 kg. in weight should also be supplied with dried whole milk. Infants should be given at least 400-500 international units of vitamin D and 3,000 international units of vitamin A daily, and this should be continued up to the age of 2 years. From 3 to 5 gm. of cod-liver oil will supply approximately these amounts.

The main supplement provided by ICEF to children between infancy and school-age — a most important group neglected in many countries — should consist of dried skim milk; some fat is also desirable. The total supplement of milk recommended was 600 cc. Pre-school children should be given 5 gm. of cod-liver oil daily. A hot meal (including milk supplement) during the day is highly desirable.

For children of school-age the main supplement should be milk, of which 400 cc. daily should, if possible, be supplied by ICEF as reconstituted skim milk. Another 200 cc. should be provided from local sources wherever this is possible. Additional calories may be supplied in the form of margarine, fortified by vitamins A and D and by other fats and oil, including lard. Meat or fish

would be a most desirable supplement for this age-group.

The February number of the Chronicle of the WHO contains information on the First Session of the Expert Committee on Venereal Diseases held in Geneva from 12-16 January, 1948.

School feeding in England

In the 1948 January issue of the "Monthly Bulletin of the Ministry of Health and the Public Health Laboratory Service", under the heading "The Progress in the Provision of Milk and Meals in Schools", some interesting data is given on the development of school feeding in England. Although an exact comparison with the previously published figures is impossible owing to the transformation of the 'public elementary' schools into 'primary' and 'secondary' schools, the progress in the last eight years may be summarized as follows:

The proportion of children taking school dinners has increased ten times, from 4.9 to 48.5 per cent.; of those children having free dinners, the proportion has risen from 3.9 per cent. of all children to 7.3 per cent. (i. e., 15 per cent. of those actually taking dinners); the proportion of children taking school milk from 55.6 per cent. to 89 per cent.; and whereas, in 1939, about 18 per cent. of all children received their milk free, in 1947 all the 89 per cent who now take school milk get it free.

In March 1946 the Minister of Education announced that, as from August 1946, school milk would be provided free for *all* children and that all payments by parents for school milk would cease on that date. In view of the supply position, however, it was decided that, except for children in special open-air schools, no child should receive more than one-third of a pint of milk per day in school. This amount forms an addition to the diet of 12.5 grams of first class protein, 13.6 grams of fat, 4 grams of calcium and 252 calories.

Further development of the school feeding service is hampered through lack of dining space, kitchen equipment, and trained staff.

The potato rationing has also had an adverse effect on school feeding, although special concessions in this respect have been accorded to the school of food canteens by the Ministry.

The British Chancellor of the Exchequer informed the House of Commons that at the end of 1947 the tax burden resulting from food subsidies amounted to three shillings and three pence per pound sterling, as compared with the standard British income tax rate of 9 shillings per pound sterling. The annual cost of British food subsidies is about eight pounds sterling per head of the population.

Meat supplies in Switzerland

Mr. G. Rutishauser, head of the meat and slaughter cattle department at Basle, clarified the Swiss meat supply situation at a press conference. Meat consumption, which before the war amounted to 190,000 metric tons, has dropped to 160,000 m. t., but, in spite of this drop, since national production is at most not more than 100,000 m.t., meat still has to be imported. There are 26,320 m.t. of meat now in storage. Another 30,000 m.t. are therefore required and it would be better to import it on the hoof. Denmark and Ireland are the only countries who can supply these needs and, under the most favourable conditions, the first of these countries could send 20,000 head and the second 10,000, but both countries have been severely affected by the drought. If these sources of supply fail, then frozen meat will have to be imported from Brazil and Argentina. This meat is of the best quality and its preliminary treatment, transportation and preparation for sale are done under the finest sanitary conditions. Mr. Flückiger, Director of the Federal Veterinary Board, corroborated this statement concerning American frozen meat which can be guaranteed to the Swiss consumer.

Rationing in the Netherlands

(Sent by the Netherlands FAO Committee).

Cuts in the milk and cheese rations were announced on 22 September, 1947, and came into effect on 28 September. They were necessitated by the adverse effects of the dry summer of 1947.

The critical feedingstuffs position compelled many a farmer to dispose of a portion of his stock. Live-stock deliveries at the local markets were so ample that sometimes extra meat rations had to be made available. The situation looked very serious for the approaching winter months, and until recently, the only justification for a more optimistic outlook was the slight recovery, in the second half of December, of the milk production, which by that time had fallen to a disastrously low level. This improvement continued. Contributing factors were the mild winter, the fact that the dairy herds were not killed off to the same extent as were the other species of livestock, and, finally, a change for the better in the feedingstuffs position.

It was consequently possible to raise the milk and cheese rations to the level of before October 1947. Since 1 February, the milk rations have been as follows: for persons of 21 and over, 2 litres a week; for persons of 5 to 20, 3.5 litres a week; and for children of 0 to 4 years, 6 litres a week. In addition to this increase in the milk rations, cheese rations will be restored to the pre-October level as well. Taking effect from March persons of

21 and over and children from 5 to 14 will receive 100 grams of cheese a week, while persons of 15 to 20 will receive 150. Children of 2 to 4 years and infants of 0 to 1 will receive 50 grams.

The difficult breadgrain position, on the other hand, has called for a further restriction of the consumption of cereal products. Since 2 January 1948, products such as plain biscuits, pastry, vermicelli and pudding powder have again been placed on the rationed list. Until that date, these products, though never plentiful, could be obtained off the ration, which now amounts to 100 grams, per caput, per week.

* *

The International Emergency Food Committee (IEFC) submitted to the Governments at the end of January 1948 a preliminary recommendation covering the distribution of the 3.36 million metric tons of fats and oils (excluding butter) now expected to be available for export in 1948.

* *

Wheat growing Norway amounted to 18% less in 1947 than in 1939. The drop was even as much as 31% in so far as cereals used for bread-making were concerned. To fill the country's requirements Norway needs 460,000 metric tons of cereals for bread-making each year, of this amount 360,000 m. t. must be imported. As a result of a trade agreement with the U.S.S.R., Norway will be able to maintain the present ration.

AGRICULTURE



The level of agricultural production in Europe *

(Extract from "A Survey of the economic situation and prospects of Europe", prepared by the Research and Planning Division of the Economic Commission for Europe, Geneva, 30 March 1948).

The recovery in Europe's agricultural production (Table A) was by no means favourable. Esti-

* Only a brief survey of the more essential aspects of the changes in Europe's agriculture is given here. A detailed examination of this question will be the subject of a separate study now being undertaken by the Food and Agriculture Organization of the United Nations.

mates for 23 European countries, which before the war together accounted for 90 per cent of the total net value of agricultural production of Europe, show that in the agricultural year 1945-46 output was only 63 per cent of the pre-war level. In 1946-47 this had risen to 75 per cent; estimates for the current agricultural year, beginning 1 July 1947, are not yet available, but indications are

TABLE A. — *The level of agriculture production in Europe. (a)*

Country	Percentage of pre-war total European production (a)	Index Numbers 1935-38 = 100	
		1945-46	1946-47
Austria	1.59	56	63
Belgium	1.98	58	72
Bulgaria	1.45	49	73
Czechoslovakia	3.70	56	73
Denmark	1.87	87	94
Finland	1.72	73	76
France	15.80	50	73
Germany (three Western Zones)	10.36	68	65
Greece	1.17	41	77
Hungary	2.28	54	55
Ireland	1.40	111(b)	108(b)
Italy	8.29	79	77
Netherlands	2.42	56	79
Norway	0.91	75	87
Poland	8.90	33(b)	45(b)
Portugal	1.12	80	95
Rumania	3.58	34(b)	57(b)
Spain	5.01	49(c)	92(c)
Sweden	2.96	98	103
Switzerland	1.31	90	87
Turkey	2.15	119(b)	119(b)
United Kingdom	6.03	106	106
Yugoslavia	3.47	50	57
TOTAL of above countries :			
including Germany	89.47	63	75
excluding Germany	79.11	63	76

NOTE. — Index numbers for 1946-47 (except for Switzerland) have been taken from a study on European agriculture which is being prepared by the Food and Agriculture Organization of the United Nations. They have for each country been derived from a calculation of the value of output at pre-war prices. Index numbers for 1945-46 have been estimated by using rough calculations of the gross value of production in 1938 prices for major cereals and animal products in 1945-46 as compared to 1946-47. For Switzerland, the rough index has been related to 1938.

Weights used in arriving at the European index are percentages of the net value of pre-war total European agricultural output (excluding the U. S. S. R.) accounted for by each country, in 1934-1936, calculated in U. S. dollars of 1938 purchasing power.

The index numbers refer to crop years July 1945-June 1946 and July 1946-June 1947.

(a) Europe excluding U. S. S. R.

(b) Basis of the index numbers : 1934-1938.

(c) Basis of the index numbers : 1930-1934.

that they will be appreciably below those of the previous year. The cumulative effect of insufficient use of fertilizers, both during the war years and after the war (caused by the shortage of both natural and artificial manures), scarcity of agricultural manpower, loss of livestock and deterioration of agricultural equipment, and finally, unfavourable weather conditions, were jointly responsible for these results. The fall in agricultural production was fairly general over Europe, all countries with the exception of Ireland, Sweden, Turkey and the United Kingdom, showing records appreciably below pre-war. The fall in production in the pre-war surplus areas, such as Hungary, Poland, Rumania, Yugoslavia (all of which show less than 60 per cent. of their pre-war average production in 1946-47) appears on the whole to have been appreciably greater than the fall in production of the western parts of Europe which was a food deficit area.

As will be seen from Table B the fall in agricultural production was uneven as between different groups of products. Meat and fats were (in 1946-47) well below two-thirds of pre-war production for

TABLE B. — *Production of major agricultural commodities in Europe (excluding U. S. S. R.) pre-war and 1946-47.*

Products	1934-38 (average)	1946-47	Index numbers (1934-38 = 100)
	Metric tons (000's)		
Breadgrains	66,195	49,589	75
Wheat	46,171	37,418	81
Rye and maslin	20,024	12,171	61
Coarse grains	59,813	43,455	73
Barley	16,485	13,375	81
Oats	23,206	18,200	78
Maize	17,984	9,854	55
Other cereals (millet, sorghum, buck- wheat, etc.)	2,138	2,026	95
Rice	1,179	824	70
Potatoes	135,346	100,685	77
Raw sugar	6,599	5,281	80
Tobacco	350	452	101
Fats (oil from oilseeds and animal fats, other than butter) . .	2,759	1,733	63
Meat	14,137	8,682	61
Beef	4,194	3,103	74
Veal	820	573	70
Mutton and lamb . . .	1,065	738	69
Pork	6,638	3,082	46
Poultry meat	998	785	79
Eggs	2,447	1,558	64
Milk	104,284	73,831	71
Butter	1,738	1,152	66
Cheese	1,447	894	62
Processed milk	560	214	38

Source. — Data compiled by the Food and Agriculture Organization of the United Nations, as part of a study on European agriculture.

Europe as a whole, while wheat fell by less than 20 per cent., potatoes by 23 per cent. and sugar by 20 per cent. The production of milk, butter and eggs was around two-thirds of the pre-war level. *Tobacco appears to be the only commodity production of which was fully maintained.* Owing to the relatively larger decrease in animal products the calorific value of supplies available for human consumption appears to have diminished less than the value of gross output.

News from Austria

(Abstracts from the Austrian Quarterly Report on the execution of recommendations of the I.E.F.C. Cereal Conference, Paris, July, 1947.

○ In order that all foodstuffs may be equitably and regularly distributed, rationing programs based on the number of calories agreed to by the Allied Council, have been drawn up for each distribution period for each specific 'Land' in Austria.

○ The bread ration for the normal consumer now amounts to approximately 450 grams (1,113 calories). Adding to this the potato ration of 200 grams (130 calories), the minimum quantity of the other foods and their nutritive value can be deduced, and it can be easily seen how deficient the diet is in Austria from the standpoint of nutrition physiology. Since in milling, 95 per cent. of the cereals are extracted, and since this flour has frequently been mixed with maize, the quality of the resultant bread is very poor.

○ Only a very small proportion of the population living in the country and not producing foodstuffs, can improve its ration, generally by means of vegetables and fruits. It is only a matter of 3-5 per cent. of the Austrian population, and improvement only represents about 200 calories per day. Persons able to procure additional calories through gift packets from abroad are also few in number and always the same, so that in this respect also there is no question of an increase in calories entailing an appreciable improvement in the food situation.

Owing to the small stocks and high prices the black market is of little importance in Austria. Black marketing operations are carried out mainly in Vienna where the population totals 1.7 million, of which only about 10 per cent. are in a position to purchase black market goods.

All essential foods are rationed at fixed prices.

○ The Austrian Government, in the press and broadcast programs, adequately treats the chief food and agriculture problems, and has also reported on the difficult world situation in regard to cereals and other foodstuffs.

The division of the country into zones hinders this work, but all efforts are aimed at taking measures which can be applied throughout Austria and at a uniformly directed economy.

○ A Food Executive, composed of the Federal Ministers of the Interior, Agriculture and Forests and Food, has been set up in order to ensure provisioning and an advantageous food policy. This Executive will see that all food problems are settled to the benefit of the Austrian population.

○ A Food Board attached to the Ministry of Food and composed of health, nutrition and social welfare experts, deals with food analysis from the standpoint of assimilation and supervises the state of public health.

○ It is desirable that the number of calories be increased as rapidly as possible and that nutrition levels be improved to prevent the health standard of the population from deteriorating; technical activity and reconstruction work cannot be carried out unless the workers are properly fed. Children, invalids and the aged should be guaranteed the supplementary rations essential to regain and maintain good health.

Only with a basic ration of 2,100 calories, commonly recognized as the 'FAO minimum standard', can a general economic reconstruction be approached. It is also particularly important that the diet be correctly balanced from the health standpoint.

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The Austrian Minister of Agriculture stated that the sugarbeet acreage will be increased from 23,000 ha to 30,000 ha. In that case, the sugarbeet crop will cover 90 percent. of the requirements. In the interest of increased sugarbeet growing it has been arranged that all sugarbeet growers will receive 1 kg. of sugar for every quintal of sugarbeet delivered to the authorities. Surplus production is rewarded.

**

Austria had about 600,000 bee-colonies before the war. This number decreased to 280,000 after the war. Calculating an average of 5 kg. of honey per colony, the total honey yield of Austria amounts to about 1 million kg.

The Austrian crop plan for 1948

(Abstracts from the Austrian Quarterly Report on the execution of the recommendations of the IEFC Cereal Conference, Paris, July, 1947).

The land cultivation Law of 26 March 1947 (B. G. Bl. No. 73/47) supplied the legal basis for the compulsory cultivation of all arable land. All

arable land in Austria is to be duly and regularly cultivated. Holders who have not carried out any preparatory tilling by the time fixed by the peasants' associations of their district, will have their land assigned to other farmers. The use of agricultural products for purposes detrimental to national economy and nutritional requirements is prohibited. By virtue of para. 2 of the Law on land cultivation, any person owning land will be obliged to return to cultivation meadow and pastureland formerly tilled or capable of being tilled. Arable land, gardens and other areas suitable for cultivation are to be grown to specific crops and unproductive land brought under cultivation. The crop programs are drawn up according to the instructions of the Federal Ministry of Agriculture and Forests, and the district administrative authorities in agreement with the peasants' association of the same district.

The Ministry drafts a detailed crop program for the different 'Laender' each year.

The 1948 crop program for various cereals estimates the following increase compared with the 1934-38 and 1939-44 averages and according to the provisional returns of the official census on land cultivation in 1947:

	1934-38 average	1939-44 average	1947	1948 crop program
	ha.	ha.	ha.	ha.
Bread grains.	621,448	496,386	410,235	527,430
Barley and spring mas- lin	168,023	157,721	111,517	154,605
Oats	288,504	224,469	191,112	229,720

Cultivation can only be assured if the requisite seed are available. By means of UNRRA funds, 1,313 tons of rye, 3,966 tons of wheat, 2,988 tons of oats and 1,215 tons of maize seed have been supplied to Austria. Through British financial aid, the Austrian Government has received 2,000 tons of seed barley and 2,000 tons of seed oats. This seed has been distributed by the Federal Ministry of Agriculture and Forests according to crop requirements and programs. The Chambers of Agriculture supervise the local distribution of the seed in the different 'Laender'. Distribution to consumers is effected by cooperatives and seed merchants.

**

Austrian agriculture depends on abroad for phosphatic and potassic fertilizers. The chemical fertilizers available during the 1946-47 season were as follows.

	N tons	P ₂ O ₅ tons	K ₂ O tons
National production .	7,567	—	—
Imports :			
(1) UNRRA	1,657	4,370	9,310
(2) British financial aid	—	1,876	—
(3) Compensation. . .	—	580	—
Total . . .	9,224	6,826	9,310

These quantities represent 46,120 tons of cyanamide, 31,750 tons superphosphate, 8,650 tons Thomas slag, 22,165 tons 40 per cent. potash salt.

UNRRA also supplied 3,000 tons superphosphate, 1,500 tons triple superphosphate, 11,850 tons Thomas slag and 4,210 tons 40 per cent. potash salt which, however, still have to be transported to Austria, and consequently can only be utilized in 1948. This is also the case for 10,000 tons of superphosphate, and 3,000 tons triple superphosphate obtained through British financial aid, and 800 tons Thomas slag available through the compensation agreements with Luxembourg.

* *

With the Decree on the quota system of distribution for agricultural products, dated 25 July 1947, the Austrian Government has started a new course.

After having heard the opinion of the Chambers of Agriculture, the Ministry of Agriculture, in agreement with the Federal Food Ministry, decides, for rationed foodstuffs, the annual quotas which producers are required to deliver at the price fixed for those products listed for compulsory delivery. The administrative chief of each 'Land' is responsible for the inventory, collection and delivery of the products in the different 'Laender', and appoints, to assist in carrying out these operations, a 'Provincial Delivery Committee' attached to the Government of the 'Land', a 'District Delivery Committee' attached to the district administration, and, in each commune, a 'Communal Delivery Committee'. In October 1947, a special authorized agent of the economic associations was appointed for the purpose of ensuring full delivery of the 1947 quota.

The following table shows the 1947-48 cereal quotas in Austria :

	1947-48 quotas	1946-47 deliveries
Bread grains	240,000 tons	187,426 tons
Barley	38,150 "	26,711 "
Oats	34,925 "	17,965 "
Maize.	23,160 "	14,828 "

These quotas applied, from the beginning of spring 1947, by the different federal 'Laender' to the districts, communes and producers, were based on the assumption that the 1947 harvest would be more or less normal. Because of the disastrous drought which ruined the crops, especially in the intensive grain regions of the Pannonian plain, the full quota of bread grains cannot be delivered, and it is expected that only 190,000 tons will be available during the 1947-48 season.

Albania

The National Plan of Albania appropriated a considerable amount for the output of minerals and petroleum. According to the Governmental Plan mining production will be increased by 287% as compared with 1946, and petroleum by 268%. Chromium output will begin this year. The Patos oilfields will be enlarged.

Free marketing of textiles has been permitted by the Albanian Ministry for Commerce. Free textiles are more expensive than rationed textiles.

News from Bulgaria

(Abstracted from the Bulletin published by the Hungarian National Committee of FAO).

○ The Minister for Construction stated that 53,000 million Levas will be invested in buildings during 1948, i. e. 17 % of the national income, including 23,000 million Levas to purchase machinery, equipments and implements.

○ Electrification in the country is proceeding. The 1947 electric production amounted to 488 million kilowatt hours against the 313 million of 1944. The production of electric power will be tripled by 1950-51. Since the liberation electricity has been provided for 700 additional villages and a further 280 will be provided for this year.

○ During the four years after the first world war only 51 km. of railway lines were built, and now 156 km. have been built in three years. The engine and railway car stocks have been increased.

○ According to a report of the Bulgarian Statistical Office the industrial production developed well during the first eleven months of 1947. The greatest increases may be observed in the following industrial branches : food industry, chemical, textile, paper and electric industries.

○ The Bulgarian Council of Ministers has approved the participation of Bulgaria at the following International Fairs : Leipzig, March 2-7 ; Prague, March 12-25 ; Posnan, April 24 - May 7, Zagreb, May 8 - 17.

Bee-keeping in Bulgaria

Although Bulgaria, according to figures, ranks first in the world in bee-keeping with its 70,500 bee-keepers and its 360,000 bee-hives or 6 hives to every 100 persons of the population, it lags far behind as a honey and wax producer. The average annual output of honey varies between 2.5 and 3 million kilograms; while the wax production is 100,000 kilograms, which does not even cover 1/3 of the home consumption, 250 kilograms being imported annually. This state of affairs proves serious defectiveness in the methods applied in Bulgarian bee-keeping and in order to rationalize it, the following measures, not new in themselves, should be taken either by the Government or the bee-keepers themselves.

(1) The organization of a special Department for Beekeeping at the Ministry of Agriculture; increased number of agronomists, bee-keeping specialists at the Central Agricultural Research Institute. The institution of a Supreme Council for bee-keeping at the Ministry of Agriculture to examine all measures to be taken by the Ministry.

(2) Extensive education in bee-keeping. Lectures in bee-keeping should be opened at the Agronomist Faculties in the country. A school for bee-keeping should be opened, and regular courses organized at places where bee-keeping is developed. Good books on bee-keeping should be published.

(3) The number of modern bee-hives should be increased and the country should for practical purposes be divided into categories of bee-keeping districts. A special bee-keeping station, for breeding a good local race of bees, should be established.

(4) Increase of the honey-yielding flora of the country, and systematic fight against diseases and other enemies of bees.

(5) Bee-keepers should be supplied with good quality modern equipment at accessible prices.

By the application of these measures, Bulgarian bee-keeping will pass from the state of an amateur occupation to that of a profitable commercial enterprise.

(Taken from 'Free Bulgaria').

Agricultural Fair and Breeding-stock Market in Budapest

(Abstracted from the Bulletin published by the Hungarian National Committee of FAO).

In the year of the Centenary of the Hungarian War of Liberty, the Hungarian Minister of Agriculture organized the Agricultural Fair and Breeding-stock Market in Budapest. The Fair, March 19-23, 1948, illustrated the present, past and future of Hungarian Agriculture. The visitor learn-

ed about the various branches of agricultural production. Particular care was taken to illustrate the following: centralization and rationalization of the agricultural administration, utilization of fallow lands, cultivation of industrial crops, supply of fertilizers, silage, agricultural industrial production, agricultural technology, viticulture and viniculture, apiculture, sericulture, apple-growing, animal husbandry, veterinary service, dairying, fodder economy, fisheries, drainage and irrigation, land reform legislation, and foreign trade in agricultural products.

News from Czechoslovakia

Mr. Duris, Minister of Agriculture of Czechoslovakia stated on 1 March that the Two Year Plan was supplying 12,000 farm tractors and the coming Five Year Plan would provide another 35,000 tractors. Thus at the end of the Five Year Plan there would be in every village at least three farm tractors and so the disparity between agriculture and industry would be gradually removed.

As soon as weather conditions allowed, potatoes would be imported from Switzerland and Rumania. Besides this, negotiations with Poland, Holland and Denmark are also being resumed.

A spokesman of the Ministry of Food at a Press Conference on 3 March 1948 estimated potato requirements until June 1948 at 11,000 waggonloads for human consumption and almost the same quantity for sowing.

According to an announcement of the Ministry of Food the children born between 1 March 1946 and 28 February 1947 will receive 3/4 litre of fresh milk per diem.

Ninety thousand Danish trout are at present being released in Slovak rivers. The consignment arrived from Denmark in a wagon specially designed for the transport of live fish.

We give below a translation of a Czechoslovak paper's appreciation of the work of Mr. H. C. Hanson, the FAO Representative in Prague:

Dr. H. C. Hanson, the representative of FAO in Czechoslovakia and the former head of the Agricultural Department of UNRRA bade farewell to Czechoslovakia after a 22 months' stay. In appreciation of his valuable work, he was decorated with the order of the White Lion and elected as honorary member of the Czechoslovak Academy of Agriculture.

Dr. Hanson summed up his experiences in Czechoslovakia and said he was surprised how our farmers make the best use not only of their tools and implements but also of every, even the smallest bit of grass. They carefully clean the stubble fields and

even the comparatively few weeds there are they do not throw away but utilize them for compost. He was pleased with our fish-ponds and thought the care for our forests could be an example for many a country. He finds our farmers hardworking, persevering and tough. It impressed him how quickly last autumn within several weeks the ploughing and sowing was completed. Our farmers deserve praise for the attention given to soil, livestock and implements and thus ensuring a high quality of agricultural produce. He did not agree with our habit of keeping almost all our milk cows the whole day in cow sheds and considered the use of common pastureland in some of our villages as a good solution of the problem. He appreciated our well developed agricultural industry and touched on the importance of its possible exports. The standard of life of even our smallest farmers surprised him. He characterized them as hospitable, noble-minded and cheerful and with a great liking for songs. Dr. Hanson also admired the great amount of cooperation our farmers offer in connection with the planning of our economy. Finally he emphasized that in his opinion every nation is able to contribute to the prosperity of all and that Czechoslovakia can contribute a great deal.

○ According to an account published in 'Information on the Czechoslovak Republic', apiculture has been on the downgrade in Czechoslovakia for several years past. The number of bee-keepers had fallen by 9.2% and the number of hives by 8.2% in 1946, compared with the figures for the 1936/37 period. Honey production in 1946 only reached 22% of the prewar yield. This drop, which has been felt particularly in Bohemia and Moravia, must be partly attributed to infection from *Acarapis woodi*. In 1946 there were 6.3 hives per bee-keeper; in 1947 there were 6.8. Out of the hives in use in Bohemia, Moravia and Silesia, 98.7% were portable and only 1.3% permanent structures.

○ In 1947 the total acreage of hop-gardens in Czechoslovakia was 21,280 acres and the harvest was estimated at 93,620 customable 'cents' (50 kg. packets). The Zatec district supplied 79,460 cents, Ustec-Dubská 9,160, Roudnice 4,500, and Trstice 500 cents.

State of the crops in Italy, February-March

According to information received from the Central Bureau of Statistics the growth of the crops in Italy is still well ahead although a few frosts have caused a temporary and beneficial lull. Chlorosis has been noted in the provinces of Ancona, Pesaro, Pistoia and Campobasso. Damage has been done

by insect pests in some other provinces. Still greater areas were planted with wheat in March.

Weather conditions have been favourable to the growth of feedingstuffs and it is hoped that there will be a good harvest of this greatly needed produce. It is estimated that this harvest will be especially satisfactory in the 21 Northern, 9 Central, 6 Southern and 4 Island provinces where cattle fodder at the present time is very poor.

Farm work is going forward fairly well. The numbers of draught animals, as well as the amount of motor fuel available, have decreased but, on the other hand, mechanized equipment is greater.

The supply of fertilizer has also increased. There are enough phosphates and nitrogenous fertilizers in 65 provinces and of potassium fertilizers in 23 provinces. There are more insecticides; sufficient on a copper basis for 72 provinces, on a non-copper basis for 54, and enough sulphur for 63 provinces.

* *

It is estimated that in Italy 120,000 to 130,000 hectares should be grown to maize. Since yields have been very low in the hot dry zones where maize has been cultivated in recent years, it will be advisable to substitute other crops. On the other hand, owing to the shortage of feedingstuffs, particularly for pigs and poultry, further imports of maize will have to be made.

Italian irrigation

The Italian irrigation program, which is considered to be one of the most important branches of reconstruction, has established the following figures for its work:

Area which can be irrigated, in hectares

	New scheme	work to be done	total
Northern Italy . . .	173,750	163,550	337,300
Central Italy	41,280	1,100	42,380
Southern Italy . . .	84,800	1,300	86,100
Islands	75,850	11,000	86,850
	375,680	176,950	552,630

The total expense of this program was estimated in April 1947 at 119,664 million, to be spent as follows: 56,525 million for irrigation work, 45,769 million for land improvement, 17,370 million for other improvements connected with irrigation. This program is already approaching completion.

Big plans have been worked out and are beginning to be put into action for the employment of the Tiber's waters. It will not only be possible to build several large electrical plants in the Latium which could furnish 100 million kilowatts but, by so doing, 100,000 hectares of land in the medium and high river valley can be irrigated. This land which is but poor grazing ground to-day, can in a few years become very fertile thanks to the water that will now be available. The first plant is already being built and will be operating by 1950.

France

In France, according to the statistics of the Ministry of Agriculture, 5,318,585 hectares were sown to winter cereals by 1 January 1948, a larger area than at the same date in 1947.

As the temperature was favourable in December an extra 273,730 hectares could be sown. 4,060,025 ha. were sown to wheat instead of 3,851,180 hectares in 1947. Rye and maslin were also sown on a larger area than last year.

News from Poland

(Abstract from the Bulletin published by the Hungarian National Committee of FAO).

○ The new international fair at Posnan will be opened on 24 April. The following countries will take part: USSR, Yugoslavia, Netherlands and Bulgaria. Czech, Swedish and French firms will also participate.

Negotiations with Italy and Hungary are still in progress. The fair will be closed by 9 May.

○ Under the Decree of the Ministry of Land Reform and Agriculture preventive vaccination of poultry will be carried-out in specified areas in the first and second quarters of the year. The cost will be borne by the Government.

○ The Minister of Land Reform will purchase 10,000 seed drills and distribute them to agricultural machine stations.

○ The Minister for Finance granted a credit of 1,500 million zloty to assist the purchase of fertilizers required for spring sowing.

○ Peat production will be increased to 5-700,000 tons yearly. The 1947 output amounted to about 80,000 tons.

○ *Drainage and Irrigation.* Since the end of the war the following work has been carried out: 3,864 km. of dikes have been repaired, as well as 4,335 km of regulated river bed, 52,258 km. ditches and 3,444 ha. have been canalized. 1,187 km. of long new ditches and trenches have been dug and 1,721 wells built in the villages. The authorities plan to carry out the following works; the drainage of an area of 3 million ha. by open ditches and that of an area

of 4 million ha. by canalization; regulation of rivers and small rivers and the reconstruction of trenches up to a length of 2,000 km. to avoid flood danger. The new working system will result in a saving of 41 per cent. Operations will begin in 1949.

News from Rumania

(Abstract from the Bulletin published by the Hungarian National Committee of FAO).

○ According to report from the Rumanian Ministry for Agriculture, agricultural activities are going on well because of the mild weather. In order to ensure the success of spring sowing, the Agricultural Ministry drafted a plan according to which those parts of the country which have no local seed stocks, would receive 10,000 tons of spring rye seeds, 10,000 tons of oats seed and 43,430 tons of seed potatoes. The cultivation of 6 million ha. of agricultural land in Rumania would need 30,000 tractors. The provision of agricultural machines for farmers is proceeding rapidly.

The Ministry of Agriculture intends to grow more wheat and less maize this year. About 3 million ha. will be sown with wheat in 1948 and 1,500,000 ha. with maize.

○ According to the report of the Rumanian Agricultural Ministry the fodder supply for livestock will be sufficient until the new harvest.

According to the report of the Bucharest Statistical Office the Rumanian livestock for January 31 1948 is as follows:

Horses	786,646
Donkeys, Mules	10,152
Cattle	2,974,756
Buffalo	138,736
Sheep	7,100,197
Goats	237,805
Pigs	1,383,588
Poultry	11,931,916
Bee colonies	382,825
Rabbits	30,316
Trained dogs	2,114,188

In recent weeks Rumanian farmers marketed large quantities of pigs. There is a considerable supply of pigs since breeders suffer from a great deficiency of maize on account of the obligatory delivery system. Pig prices have fallen from 125 to 100 lei per kg. The livestock wintered well; but recently a severe infection of swine fever and swine erysipelas was reported. These disorders occurred because of the mild weather. There is much compulsory slaughtering, and small demand on the cattle market.

○ State commerce takes an increasing part in the commercial life of Rumania. Several state commercial enterprises have been established in Bucharest, and state commerce will be established in other parts of the country also. According to these plans 34 new state establishments will be opened within the next two months in the larger towns of the country.

Agricultural program in Turkey

The President of the Council, Hasan Saka, in a speech before the Turkish National Assembly made the following statement concerning the high cost of living and agriculture :

"As an essential means of reducing the high cost of living and also for the development of the economy of the country and its natural wealth, we believe that the surest way is to increase our production rapidly in all fields.

In order to increase agricultural production which is the basis of Turkish economy our first task is to equip agriculture with modern technical equipment.

We have decided to change those farms which are the property of the State, by ceasing to consider them as production establishments and by converting them into schools which will teach modern techniques to farmers in their respective areas and into model farms which will provide the necessary seed to farmers.

Along with these agricultural matters continuous efforts will be made to endow farm labourers with land ; first of all the land belonging to the State will be apportioned.

We necessarily attach importance to irrigation which is the basis of our agriculture. We will try to coordinate and complete as soon as possible the work already begun by large irrigation concerns and we will carry on, in a wider field, the small irrigation projects which, with a minimum of expense and assistance, give such good results".

U. S. S. R. Agriculture

(Extract from the 'Cahiers de l'Economie soviétique', No. 9, July-September 1947).

The area sown in 1947 should have amounted to 10 million hectares of new land, or an annual increase almost equal to that obtained during the five years of the third five-year plan (11.7 million hectares). Cereals would be grown on two-thirds of these new lands ; these 6.3 million hectares would be divided as follows :

4.5 million ha. in the R. S. F. S. R. ¹⁾ (of which 1.8 in the central part), 5 in the Volga region, 7 in the Caucasus and Crimea, 6 in the Ural and 7 in Siberia ; 0.6 million ha. in the Ukraine ; 0.4 million ha. in Bielorussia ; 0.2 ha. in Kazakhstan ; 0.6 million ha. in the other Soviet republics.

1.5 million ha. of the 6.3 have been reserved for autumn sowing ; therefore almost all of the new work planned was done during the second quarter of 1947.

The decree of February 1947 on the reconstruction of rural economy had fixed 10 June as the final date for the new ground to be broken. The

press insists that this time limit be observed ; experimental studies have shown the influence of any delay on the yield.

Spring came early in 1947. By 10 April snow had melted south of Leningrad, Moscow, Ivanov, Kazan and Molotov. This mild weather had speeded up almost all farm work. Local frost did not hurt autumn-sown wheat which is growing well ; in Kuban, by 30 April, wheat was up 60 to 70 centimetres. Cotton growing in central Asia benefitted from the moisture and warmth which are necessary for a good crop.

Plans for sowing throughout the Soviet Union had been carried out 75% by 20 May, in regions where the season is earlier sowing was almost completed. A check on the way the sowing was carried out, in order to avoid the deceit which had been practised in some regions, was ordered by a decree dated 30 April. In the Ukraine, spring wheat was sown on about 25,000 ha. more than the anticipated area ; on the other hand the planting of commercial crops, of the sugar-beet in particular, was delayed. The area in the Ukraine sown with sugar-beet increased by 115,000 ha. in 1947.

One can already note the respective importance that each crop has in the general plan for the division of the areas sown. Concerning this, the final result, which it is hoped will be reached by 1950, compared with prewar figures, is as follows :

Regions	Years	% area sown	% devoted to certain crops out of the total area			
			cereals	Industrial crops	vegetables	feeding-stuffs
North-west	1940	82.5	47.1	9.1	8.6	17.7
	1950	85.4	44.8	8.3	9.4	22.9
Central region except for the 'Chernozem'	1940	76.9	54.2	5.2	5.6	11.9
	1950	81.5	50.7	4.9	6.5	19.4
Central region of the 'Chernozem'	1940	73.4	60.8	7.1	1.7	3.8
	1950	79.4	58.0	6.9	2.6	11.7
Volga	1940	77.7	64.7	5.9	1.5	5.6
	1950	80.6	61.4	5.7	2.1	11.4
Crimea and North Caucasus	1940	87.1	61.0	11.5	2.2	12.3
	1950	88.2	58.1	11.2	2.5	16.4
Ural	1940	79.3	68.3	3.4	1.8	5.8
	1950	81.1	64.5	3.4	2.5	10.7
Western Siberia	1940	81.2	72.0	3.4	0.9	4.7
	1950	78.9	65.0	3.5	1.6	8.8
Eastern Siberia	1940	70.3	65.6	1.1	1.3	2.4
	1950	72.6	62.4	1.1	2.2	5.9
Uzbekistan	1940	95.1	46.6	33.9	1.6	13.0
	1950	91.6	37.6	33.4	2.2	18.4
Kazakhstan	1940	82.5	73.3	4.7	1.0	3.5
	1950	82.2	64.2	4.3	1.4	12.3

¹⁾ Russian Socialist Federal Soviet Republic.

For the Union as a whole the increased area cultivated by the kolkhozy in 1950 will amount to 4.6 million hectares compared to the area under cultivation before the war. It will be noted that the percentages devoted to cereal-growing and to industrial crops have nearly all decreased in favour of feeding-stuffs and vegetables, this confirms the fact that in the U.S.S.R., as in the rest of the world, eating habits have changed considerably.

On the other hand since wheat is only a part of the total cereal area, the percentage of the area sown with cereals may decrease without necessarily inferring that a similar decrease has taken place in the area sown with wheat.

Finally, the policy of crop rotation, which is considered to be the only one compatible with increased yields, results in the decline of the single crop, mainly in those regions where formerly cereals were grown almost exclusively. The development of the division of the areas in the Kuban, Crimea and Northern Caucasia — the wheat granary par excellence — is especially characteristic.

	1913		1940		1947	1940
	1 000 ha.	%	1,000 ha.	%	%	%
Total area under cultivation	11,072	100	13,610	100	100	100
Cereal area	11,072	92.5	9,356	68.7	76.1	63.8
Including:						
Autumn wheat	3,222	26.9	3,941	28.9	34.3	13.9
Spring wheat	2,753	23.0	1,047	7.6	41.8	31.9
Industrial crop area	467	3.9	1,530	11.2	11.0	10.8
Vegetable, potato area	300	2.5	470	3.4	4.3	4.3
Feedingstuffs area	95	0.8	2,224	16.5	8.6	21.1

Thus, on the whole, cereal cultivation has decreased; it now consists entirely of wheat growing of which the percentage area is distinctly higher than it was before the war. In the Ukraine also the area under barley, which last year had already reached the prewar level, will be cut down in favour of wheat.

Less easy to explain but not less important is the increased cultivation of certain industrial crops such as silk and above all kok-saghyz, in the West (Moldavia-Ukraine), where such cultivation was formerly not widespread.

Important plans for the distribution of oil-bearing seed crops are at present being studied in order to decide which crops should be increased in view of the results obtained in different parts of the U.S.S.R. during past years. Tables have been drawn up

which show the amount of oil yielded by each crop per acre and per working day, so that, in 1950, 880,000 metric tons of vegetable oils may be obtained compared to the 705,000 m. t. obtained in 1940.

In so far as the extent of the plans made is concerned, the means at the disposal of Soviet agriculture are numerically inferior to those available before the war. An effort is being made to make up for this by increasing the output of farm labourers and of the working-stock used.

The farmers on the kolkhozy and the tractor drivers who distinguish themselves by increasing their output will receive awards of an honorary nature as set forth in the decree of 1 April 1947.

○ In the Ukraine the work which was allotted to the M. T. S. (Motorized Tractor Stations) this spring has been fully accomplished. In Bielorussia, on the other hand, most of the work is done by draught animals. It is difficult to state exactly what proportion of agricultural work is now done by mechanized and what by draught animal traction. Conditions vary in different areas. In an essentially agricultural region such as the Kuban, the work of a large kolkhoz ('The Bolshevik') was planned for 1947 as follows:

Area cultivated: 8,723 hectares.

Area allotted to the M. T. S.: 6,718 ha., or 77%.

Area to be cultivated by draught animal traction: 2,005 ha., or 23%.

The increased production of agricultural machines will benefit areas less favoured with regard to mechanization.

○ On the eve of the second world war, there were 7,000 farm machinery and tractor centres to serve the kolkhozy in the U.S.S.R. With these tractors and machines 111 million hectares were cultivated, saving the labour of 11 million persons per year. U.S.S.R. now has about 7,600 agricultural machine and tractor centres, and according to the Soviet press, these will be increased to 8,400 in 1950, which will enable the greater part of farm operations to be mechanized (90 % ploughing, 70 % sowing and 55 % harvesting).

Irrigation plans for Central Russia

Extensive irrigation work was begun in the black soil region of Central Russia last autumn, in the *oblast* (provinces) of Tambov, Voronez and Kursk.

It is intended that the waters of the Don, Voronez, Zna and Oka rivers will be used to supply the numerous irrigation canals, artificial lakes, reservoirs and hydroelectric stations.

Many canals were dug in the autumn. The enforced winter idleness of the collective farmers was put to account under the direction of the engineers in charge of the work. Material was prepared for the work that will be done in spring and summer;

the main work was wood chopping. Pravda noted the progress made in the villages of Bokino and Michurinsk and in the Karachaevsk region. It is hoped to irrigate 40,000 hectares in the good season.

Pravda, referring to the importance of the black soil region, quoted the words of the great Russian savant Dokuchaev concerning the agricultural value of this kind of land: "There are no figures which can make one realize the strength and power of this tsar of lands which is our black Russian earth".

Preparation for 1948 agricultural work in the U. S. S. R.

Izvestia complains of the lack of seed reserves needed for sowing in certain regions. The shortage would be felt particularly in the Saratov, Rostov and Voronez regions.

It is expected that this year agriculture will be increasingly mechanized. Another 31 million hectares will be worked with the help of tractors which brings the area so worked almost up to the prewar size. The U. S. S. R. Council of Ministers has framed a new model contract for agreements between machinery and tractor stations (*MTS*) and the *kolkhozy*. A new feature of this contract is that work is considered from the standpoint of quality and no longer from that of quantity alone.

* *

According to the Soviet press, meat and dairy production in the U. S. S. R. will soon reach prewar level. In 1948, butter production is expected to be 31 % higher than in 1947, cheese 28 %, meat 26 % per cent. and porcine products 35 %. On the other hand, grants for plants intended for the meat and cheese industry are 3.5 times the 1940 amount.

Seed production in U. S. S. R.

We give here some extracts from an article by V. Belusov which appeared in 'The Fertilizer and Feedingstuffs Journal', London, 31 December, 1947 entitled 'Seed Selection and Cultivation in the Soviet Union'.

Seed farming is regarded as an important matter for the state in the Soviet Union. Its foundation was laid by a decree signed on 13 July 1921, when the organizational forms of seed selection and cultivation were first fixed and the ways and means indicated for the development of selection stations and seed nurseries applicable to the conditions of various agricultural districts in the country.

In 1937 the Government elaborated a more perfect system of seed cultivation. At that time a network of state seed-selection stations and dis-

trict seed nurseries for grain cultures was established.

In recent years the workers of these stations cultivated and handed over for state tests more than 600 new, high-yielding varieties of crops.

Each variety is placed in a zone in which it can yield the highest and most stable harvest.

The final and most important link in the Soviet seed-cultivated system is the seed plot. The government has obliged all collective farms to set apart such plots for all grain crops. From next year onward only the best local seed or seed selected for the given zone will be planted on these plots. Not less than once in four years the seed material will be replaced by selected varieties of district seed nurseries. The seed plot set apart in each collective farm will be of a sufficient size to cover not only the present seed requirements of the collective farm, but also for extending the sowing areas and for providing reserve stocks.

The State stimulates cultivation of selected seed by offering a higher price for selected seed grain grown in an elite farm and delivered to the State warehouse.

In the Soviet Union, before the war, 84 % of the entire area under grain and legumes was sown with selected seed, and in some districts such sowings constituted 100 %. As a rule, selected seed yield an increase in the harvest by 20-30 %.

Selectionists are carrying on work for cultivating high-yielding varieties adapted to local conditions. Special attention in this work is devoted to the cultivation of high-yielding, frost-resisting varieties of winter wheat.

State selection stations have cultivated such valuable varieties of this kind of winter wheat as the Ulyanovka, sown on a considerable territory of the U. S. S. R., the Novoukrainka, and the Moscow hybrid 48. (*The Fertilizer and Feedingstuffs Journal*, Dec. 31, 1947).

Hybrid research in the U. S. S. R.

In 1947, the Scientific Research Institute for cereal-growing in the outskirts of Moscow, with Prof. Tsitsin in charge, obtained new wheat hybrids. Because of the large number of grain in the ears (70 to 100) and the resistance to lodging of these new species, yields of 40 quintals and even more per hectare can be obtained.

The Institute also carried out experiments on the breeding of perennial wheat and some preliminary types have been obtained.

Soviet biologists have succeeded in correcting the sterility of rye and couch-grass hybrids. After 10 years of experimenting, second generation seed has been obtained.

Experiments were also carried out in 1947 with a view to preventing sterility in hybrids obtained

from 1943 to 1946, on crossing *Elimus* with wheat, barley and rye. If these experiments are successful, the yield per hectare will be increased appreciably since *Elimus*, a wild plant, produces approximately 1,000 grains per ear, while wheat, barley and rye usually only bear 30 to 40. It has been observed that the fertility of plants in hybridization is hereditary and consequently the outlook is promising.

Work is also being continued on the hybridization of arborescent with herbaceous plants.

Agricultural production in Switzerland

(Communication from the Swiss National FAO Committee).

In 1947, Swiss agriculture suffered losses through the drought and the constant increase in production costs, with the result that this branch of economy encountered less favourable conditions than those prevailing in 1946.

The gross output of agricultural production — which represents the value in specie of all the produce put on the market or allocated for farm supplies — amounted last year, according to the provisional estimates of the Swiss Farmers' Secretariat to 2,033.6 million francs. Compared with the final figure for 1946, there is a decrease of 87.6 million, namely, 4.1 per cent. Crop production showed a drop of 115.6 million, while animal production increased by 28.9 million. The difference between the output of the last two years would have been much greater if the authorities had not decided to raise the price of several essential products.

News from Yugoslavia

(Abstracted from the Bulletin published by the Hungarian National FAO Committee).

The Agricultural Research Institute at Novi Sad has carried out research in cotton production for a long time. Hitherto the work did not meet with success and it was stated that in the northern part of Yugoslavia cotton may be produced only under the best weather conditions. It was necessary to find varieties of cotton which do not suffer in a northern climate. Through improvement by Russian, Bulgarian and Macedonian cotton seeds the Institute discovered a kind of cotton which ripens seventy days earlier than the other varieties and increases yield by 15-20%. Last year 600-700 kg. of cotton were produced per ha. and near Novi Sad the yield per ha. exceeded 1000 kg. The construction of the large Danube - Tisa - Danube Canal and the development of the watershed in the Vajdasag will render new areas suitable for cotton production.

○ There is abundant water power in Yugoslavia. The rivers represent gigantic unutilized power. According to experts' calculations, the utilization of the total power of the river Drina would supply the equal of the manpower of 45 million people.

○ The utilization of waterpower was developed very little before the war. During the first year of the current Five Year Plan, six hydroelectric plants were built. By the end of the Plan, 65 such works will have been constructed.

○ On 1 March, 1948 spring sowing was begun in Northern Yugoslavia. According to the forecast of experts, operations will be finished within 40 days. This year the machinery is much better than last year. Sixty per cent more deep-plowing was carried out this winter than in 1947.

○ The agricultural cooperatives want to sow 70 per cent. of the available arable land with cereals, 13 per cent. with industrial crops, 12 per cent. with feedingstuffs, and 5 per cent with vegetables. Twice as much feedingstuffs will be sown as last year. The acreage of cereals and industrial crops has been decreased but, by the employment of new methods the average yield will increase. 10,000 tons of fertilizers have been distributed among cooperatives.

American potatoes in Italy

Tests were made in Tuscany in 1947 with a view to introducing into Italy a variety of potato, the *Irish Cobbler*, which is grown extensively in the United States.

The results of the first experiments, made by planting healthy seed potatoes rather late in the season as they did not arrive until the end of March, were as follows: the potatoes grew rapidly at first into sturdy plants with abundant blossoms; immediately after blossoming, however, the plants wilted and dried up very rapidly which indicated that the potato crop would be rather poor. When the potatoes were dug it was a surprise to find that, on the contrary, the potatoes were more often than not equal or superior to the other local varieties both as to quantity and quality. Had the plants not wilted so quickly the crop would certainly have been much better. The drying up which was noticed cannot be entirely attributed to the drought and the high temperature in the early part of the summer, as the growth cycle of the *Irish Cobbler*, which is much shorter than that of other varieties, must also be taken into account. The premature drying up of the plants would doubtless have occurred even under more normal weather conditions.

Briefly, this American potato, in spite of late planting and the hot weather, appears to promise well, especially if planting is done as early as local climatic conditions permit, and if the ground is well manured both at planting time and when the young plants appear above ground. By so doing the tuber formation stage will be reached in Spring, when the weather is usually less dry and less warm, and thus a better crop may be obtained.

French potato production

During a meeting of the French National Federation of seed potato producers, Mr. Leconte, President of the Official Control Committee, stressed the importance of the development of potato production in France and quoted the following figures :

Years	Declared areas in ha.	Accepted areas in ha.	Corresponding weight in thousands of kg.
1944	16,500	10,100	140,675
1945	28,400	15,200	200,460
1946	39,900	19,200	287,195
1947	45,200	33,500	528,550

Thanks to this increased production France hopes to reduce her potato imports and to increase her exports, especially to South America.

The potato position in the United Kingdom

The British Food Minister endorsed the appeal of the Minister of Agriculture for the maximum possible acreage of potatoes to be planted this year. Agricultural production must be supplemented by every ton which can be grown in allotments and gardens and seed will be made available from the Ministry's reserves, so as to ensure that no acreage or plot will go unplanted. Supplies of Scottish and Northern Ireland seed will amount to 430,000 tons as compared with 500,000 tons last year, so that it will be necessary to use English once-grown seed for more than half the acreage sown. Mr Strachey added that the recent potato census has given a better result than was expected. There are hopes of maintaining the 3 lb. allocation to at least the end of March. A reserve of swedes is being established in case supplies run out.

Voluntary contribution of farmers in the United Kingdom

Mr. Williams, the British Minister of Agriculture, set forth recently, in a broadcast, the heavy task which the English farming population is asked to shoulder, a task which they have already begun on their own initiative. He noted that success had already been met with the previous year in the expansion of agriculture and that the potato crop, in spite of distinctly unfavourable weather conditions, had outstripped the prewar crop by 3 million metric tons. The new minimum goal which has been set by the Government is extremely high, 600,000 hectares in 1948, but the Minister stated his conviction that it would be attained. He also spoke of flax growing. The amount of flax seed gathered must be 5 times greater than in the previous year so that a three-fold objective might be reached: the increase of linseed oil stocks, the provision of a national food supply for livestock; part of the residue after pressing would be used for this purpose whereas another part could be retained by farmers for their own livestock. He stated, finally, that the future of British agriculture lay with the increase of three crops: potatoes, wheat and sugar-beet.

Rice-growing

Rice cultivation was introduced into France before the first world war. Rice-fields were laid out in Camargue where irrigation facilities were more easily obtainable. The cessation of rice imports from the Far East during the German occupation gave fresh impetus to rice-growing, which extended to other Mediterranean zones where climatic conditions are suitable. The chief rice-producing Departments are Bouches du Rhône, Gard, Aude, Var, Vaucluse and Hérault. The following figures indicate the increase in production and in area cultivated since 1943:

1943-44 . . .	5,000 qls. from 460 ha.
1944-45 . . .	5,000 qls. from 500 ha.
1945-46 . . .	8,000 qls. from 500 ha.
1946-47 . . .	13,140 qls. from 762 ha.

In the 1947-48 season 1,700 ha. will be grown to rice, and the expected yield is calculated at 40,000 qls. It is considered that with the use of tractors and mechanical means, home production of rice could attain 200,000 qls. per annum.

Approximately 5,755 hectares are under rice in Hungary and the yield attains 18,000 tons, which should suffice to meet the requirements of the country. Before the war practically no rice was cultivated and some 20,000 tons were imported annually from Italy. It is expected that the 1948 crop will almost cover home consumption.

In Italy, the National Economic Committee is of the opinion that rice cultivation should be extended to the maximum technical limit, namely, to about 150,000 hectares. Increased production is considered essential in order to meet home requirements and to renew the export trade in rice.

VIIIth International Genetics Congress

The VIIIth International Congress on Genetics will be held in Stockholm, 7 to 14 July, 1948, under the chairmanship of Prof. H. J. MULLER, Nobel prizeman. From 1 to 5 July, before the Congress opens, living experiment material will be on exhibition and demonstrations will be given of the experiment work of the Institute of Theoretical and Applied Plant Genetics of South Sweden. During and after the Congress, visits to the Ultana Royal College of Agriculture, Upsala, and to the Animal Husbandry Institute in Wiad Eldtomta, will be arranged.

ANIMAL PRODUCTION



Livestock in Hungary

Last autumn the Hungarian Central Statistics Office began an investigation with a view to ascertaining more exactly the present livestock numbers in Hungary, as since the war only rough estimates have been available. The first step in this investigation was, on 15 October 1947, to take a census

of the cattle, pigs and poultry for fattening in 10% of the stockfarming localities of the country, covering 332 communes and towns. It is proposed to repeat this census every four months. The results obtained were utilized on the basis of data supplied from a preliminary census held in May 1947.

According to Mr Szöllösy Zoltán (*Magyar Statisztikai Szemle*, September-October 1947), breed purity among the 1.6 million cattle is inferior to that before the war. The proportion of animals of undetermined breed (classed in the census under the head 'other breeds') has increased to the detriment of pedigree breeds. There is also a shortage of young rearing animals over two years old. Draught oxen have diminished in number and have been replaced by draught cows: the proportion of these cows which, in 1942, stood at 14.2 %, rose to 44.2 % in 1947. Milch cows are being kept longer (37.6 % of the cows are 6 to 7 years old, 17.3 % 9 to 11, and 6 % 12 years and over), and consequently milk production continues on the downward trend.

Pigs number 2.7 million, of which 74.6 % are porkers. Here also, there are not enough young animals and breeding pigs, although this may be due to the fact that farrowing had not yet taken place at the time of the census, and that the older breeding animals were being fattened for slaughter.

Pigs are usually fattened in autumn and spring with the peak season about mid October. At this period last year the porkers numbered 1.2 million. Up to mid December 1947, 33.3 % were to be sold or slaughtered, and the remainder before 15 February 1948; weight, for 75 %, was not to exceed 150 kg. Considerable attention is paid to the prevention of disease; the investigation showed that 937,000 pigs had been given vaccine treatment.

During the period spring 1947 to spring 1948, approximately 900,000 geese had been fattened or set aside for fattening; they will supply about 5.4 million kg. of meat and fat. Contrary to the situation before the war, there are now more ducks than geese, as they number 1.8 million. During the aforesaid period, 1.4 million ducks have been or are to be fattened, and 4.2 million kg. of meat and fat will be obtained. Of the 9.6 million kg. meat and fat from the geese and ducks, 3.7 million kg. will be assigned for general home consumption, the remainder to be kept by the producers for their own use.

Cautious estimates based on census data indicate that Hungary ought to be able to obtain, in the spring of 1948, from home livestock and poultry breeding, approximately 600 to 700 thousand quintals of fat. After deducting the quantity to be exported, it will be possible to fix a per caput allowance of 6.5 to 7.5 kg., a ration which is still far below that of normal years.

Foot and mouth disease in the Netherlands in 1947

(Sent by the Netherlands National FAO Committee).

On 1 January 1947 about 1,000 holdings in the Netherlands were attacked by foot and mouth disease, affecting an area of more than 400 of the 1,015 municipalities.

In the first week of the year another 151 cases were notified; thereafter the weekly figure fell regularly, until, after 4 May, there were fewer than 10 fresh cases a week.

In the period from 10 October to the end of the year, the Netherlands were free from foot and mouth disease apart from the recurrence of 3 old cases in the week ending 2 November, and 4 fresh cases in December.

It is impossible to evaluate all the reasons for this improvement during the grazing season in a country such as the Netherlands, where the cattle population is 188 head per 100 hectares of grassland and where the presence of many canals and ditches in flat surroundings increases the infection hazard and where exists much traffic of cattle in the numerous markets. One important factor in the prevention of the spreading of the disease has undoubtedly been the vaccination of two-thirds of the cattle population with Dutch foot and mouth vaccine within the last two years. It has been proved during this period that with careful observance of the rules regarding storage and application of the vaccine a sound immunity of at least 8 months, and often much longer, can be affected. No formation of vectors and no detriment to the animals health or production capacity has been observed.

The Ministry of Agriculture, Fisheries and Food has the power to prescribe compulsory vaccination for the whole country, or for certain parts, if necessary; but the majority of stockbreeders realize the value of vaccination in combating foot and mouth disease, and have voluntarily submitted their herds to this treatment.

The fact that vaccinated animals are required by several countries, including Belgium, France and Italy, who import cattle from the Netherlands shows how favourably the new Dutch vaccination is judged abroad.

Vaccine is being regularly produced, and there is now a supply large enough to meet any emergency demands. It has been decided to apply vaccination regularly and to take immediate and widespread action in case of danger.

The effects of the new vaccine on the foot and mouth epidemic during 1947 justify an optimistic outlook as to its future success in combating this disease.

The Waldmann vaccine for foot-and-mouth disease

In the *Review of Veterinary Medicine* of the National Veterinary School at Toulouse, Mr. P. Duvallet states that "the burning question of foot-and-mouth disease prevention is now solved in the main thanks to the Waldmann method. The laboratories must now seek a way of improving this method in order that a cheap and non-perishable vaccine may be obtained".

This vaccine, which Waldmann and his assistants evolved in the laboratories at Ile de Rheims in 1938, is made by the adsorption of the virus with aluminium hydroxide attenuated with formaldehyde and heat.

This vaccine is very susceptible to change in temperature. It has to be kept at a temperature varying between 2° and 3° Centigrade. Under these conditions it will keep for a year.

Cattle become immune within 8-10 days after vaccination. Some animals become immune by the end of the fifth day and sheep from 4 to 6 days. Cattle remain immune from 7 to 9 months. "*Vaccination may be done in infected surroundings*".

"The injection must be done *sub-cutaneously only*, otherwise accidents, sometimes of a serious nature, may occur. Complications are lessened if the vaccine is administered in small doses and in parts of the body where the skin is loose (sternum).

The official dosage is as follows:

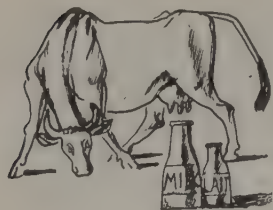
calves: 20 cc.; young cattle weighing 100 to 300 kg: 40 cc.; full-grown cattle: 60 cc.; sheep and goats: 5 to 20 cc. according to size; young pigs: 5 to 10 cc.; full-grown pigs: 20 to 40 cc.

When there is an epidemic of foot-and-mouth disease in an adjoining country all the animals in the frontier zone, to a depth of from 10 to 20 km., can be vaccinated, but this is a very expensive procedure and it will be sufficient if protective buffers are established along natural paths of communication and also if those animals which graze in the immediate vicinity of the frontier are vaccinated. When there is an epidemic within the country there will be a combined program for the immediate slaughter of diseased animals and the formation of a vast protection belt by means of vaccinating susceptible animals.

* * *

The first 'Centro Tori' in Italy, organized on the same lines as bull studs in U. S. A., began its activities in San Giuliano Milanese, in November 1947. It is to have eight to ten pedigree sires and the sperm for artificial insemination will be forwarded daily to Cremona. The expert technical work will be carried out by technicians of the "Istituto Sperimentale 'L. Spallanzani' per la Fecondazione Artificiale" in Milan.

MILK AND MILK PRODUCTS



Milk production and utilization in Switzerland in 1947

(Provisory results: estimates of the "Secrétariat des Paysans suisses").

	1947 (provisory) (1000 qls.)	1946 (1000 qls.)
<i>'Commercial' milk</i>		
Milk for consumption by non-farming population	6,280	6,180
Processed milk	8,420	7,520
Total	14,700	13,700

<i>Milk not marketed</i>		
Milk consumed by the producers	3,700	3,700
Milk fed to stock	3,200	2,900
Total	6,900	6,600
Total milk production	21,600	20,300

<i>Milk products</i>		
Cheese	421	390
Butter	196	148
Condensed milk, milk powder, casein, etc.	127	125

Milk deliveries to dairies and to bottling plants were 7.1% higher in January 1948 than in January of the previous year. This increased production is attributed, first of all, to the fairly large use of concentrated feedingstuffs as well as to a more efficient feeding system and to the fairly mild weather this January.

International Dairy Congress

A large international Dairy Congress will be held in Stockholm 15 to 19 August 1949, at the invitation of the Swedish Dairy Industry in cooperation with the 'International Dairy Federation'. This Congress, which will be under the patronage of the Crown Prince of Sweden, will be the first of its kind to be held since the war. Problems concerning organization and others of a scientific, technical and economic nature which have a bearing on

the dairy industry will be dealt with at the Congress. The National Committees of the various countries have been notified lately of the meeting which is planned, and experts the world over are invited to submit to the Congress reports or studies on subjects concerning dairy problems. It is predicted that about 2,500 delegates will take part in the Congress. (From the review entitled 'Chimie et Industrie')

AGRICULTURAL INDUSTRIES



The establishment of CERIA

(Sent by the Belgian National FAO Committee).

A most useful lead has been taken in the Province of Brabant in setting up a "Food Industries Training and Research Centre - CERIA" (Centre d'Enseignement et de Recherches des Industries Alimentaires).

Even before the end of the occupation, authorities from widely differing circles had grouped together to study an extensive range of problems of cardinal importance which would concern post-war needs, and consequently the food question was tackled.

Specialists which had been invited to give their opinion had not failed to point out the tangible improvements which should be made in the technical training of the workers employed in the food industry, workers who not infrequently, besides knowing nothing of the basic principles of their trade, also neglect the necessary rules of hygiene.

It was also proposed to examine the problems from the standpoint of the economy of Brabant: in effect, the food industry is one of the most important.

Formerly, practically no technical training was given in the various branches of the food industry.

The centralizing of training institutions set up or about to be set up was also contemplated.

This is how CERIA started.

The Belgian National FAO Committee cannot but approve the proposed establishment of CERIA, a comprehensive organization for training qualified workers for the food industry, and which will group in a series of adjacent premises, the laboratories,

lecture halls, small scale industrial equipment, necessary for these courses.

The principle which dominates the carrying into effect of the CERIA project is the grouping together of the training institutions related to the same branch of industry or trade, taking as a basis the salient features and keeping in view as far as possible the system: *conceive - produce - manufacture - process - sell*.

Thus, the training institutions concerning the following branches of the food industry will be combined into one 'Centre':

Brewing
Malting
Milling and allied industries
Sugar industry
Dairying and fats
Storage and canning
Wine - alcohols and derivatives
Trade branches of the food industry;
Hotel-keeping and domestic service
Selling.

There is no better way of concluding this note than by giving the CERIA program as drawn up by the promoters of the scheme.

CERIA

INDUSTRY	TRADE
Brewing - Malting	
<i>Milling :</i>	
Oat flakes	
Alimentary pastes	
Maize and rice milling	Bread-making school
Infants' foods	
Stockfeeds	Pastry-making school
Biscuit-making	
Starch-manufacturing	
<i>Sugar industry :</i>	
Refining	
Candyng	
Confectionery	Confectionery school
Candied fruits	
Chocolate-making	Chocolate manufacture school
Glucose manufacture	
<i>Dairying and fats :</i>	
Dairying	
Butter-making	
Cheese-making	
Margarine manufacture	
Oil-milling	

Cold storage - canning

Trade branches of the food industry :

Low temperature industry	Grocery trade
Fruits	Creamery trade
Jam-making	Butcher's trade
Vegetables	Pork-butcher
Meat	Fish and molluscs
Fish	Fruit
	Vegetables
	Poultry and game

Distillery - Vinification :

Distillery industry	
Liqueurs	Hotel and tourist industry
Wine-marking	
Fruit juices	
Cider	
Vinegar-making	
Mineral waters, soft drinks	
Yeast manufacture	Selling.

The coordination of Bulgarian and Yugoslav agricultural industries

A joint Bulgarian-Yugoslav committee which met in Belgrade, October 1947, drew up a programme for the coordination of the industries of these two countries in 1948. According to this plan Yugoslavia will manufacture tractors. The types of agricultural machines, refrigerator cars, locomotives, etc., produced will be standard for both countries. The Bulgarian preserve industry will be used by Yugoslavia; this industry will be coordinated in the two countries with the object of exporting jointly. The needs of the Bulgarian textile industry will be filled by Yugoslavia which will send 14,000 spindles. In the field of agricultural production a joint programme has also been worked out. Thus Yugoslav sugar beet will be shipped by the Danube to Bulgarian refineries. Bulgarian industry will undertake the refining of vegetable oils and will use Yugoslav maize for the production of glucose. Both countries will produce casein glue from material supplied by Yugoslavia.

Artificial fibres of plant origin

As is known artificial fibres can be obtained from plant proteins. For this purpose it is necessary to transform the globular molecular complex into a linear or fibrous complex.

Numerous processes have been devised using a considerable number of plants, and several of these

methods have been tried on an industrial scale. The proteins occur mainly in the seeds, but also, to a lesser extent, in the vegetative parts of the plants. They may be divided into simple proteins albumin, proclamin and glutelin; and conjugated proteins: nucleoproteins. The following table taken from an article by D. Fornelli (1) indicates the approximate percentage of crude protein contained in some seeds.

Coconut	10.31 %
Maize	10.91 %
Oats	13.10 %
Wheat	13.90 %
Rye	12.46 %
Walnuts	18.75 %
Almonds	24.49 %
Yellow lupin	44.48-52.30 %
Groundnut	32.66 %
Peas	21.50 %
Sunflower	24.06 %
Pumpkin (hulled seed).	28.00 %

DDT and silkworms

Following his experiments in Italy, Prof. Lombardi of the Experiment Station for mulberry cultivation and sericulture, reported that, when anti-malaria operations were necessary in silkworm-breeding areas they should be carried out a month before the eggs hatch. In effect, whether kerosene or xylene is used as the vehicle for DDT, both solutions are equally injurious to the silkworm. This injurious action may last from a minimum of 15 days to a maximum of 20 days or a month depending on the exposure, aeration and arrangement of the houses.

Two international congresses on sericulture and the silk industry

From 7 to 13 June, 1948 in Alès, France, silkworm breeders will attend an International Congress which will be organized by the Sericulture Experiment Station of that town. After this meeting, an International Silk Congress will be held in Lyons from 14 to 20 June. At this latter congress the following questions will be discussed: (1) Production of silkworm eggs; (2) processing of silk; (3) trade in raw and processed silk and floss silk; (4) spinning of schappes and silk waste; (5) twist silk; (6) weaving; (7) sale of silk fabrics; (8) dyeing, printing and sizing; (9) silk hosiery; (10) silk tulle and lace; (11) manufacture and sale of silk ribbon; (12) manufacture of silk articles; (13) retail trade in silk articles; (14) dress and millinery establishments.

(1) FORNELLI (Domenico), *Le fibre azotate artificiali*, *Rivista Tessile*, Milano, 1947, Nos. 8-9.

In Italy 20,000,479 kg. of silkworm cocoons equivalent to 2 million kg. of silk, were collected in 1947. Present production is one-third higher than that obtained in 1945.

* *

The Italian Cabinet on 22 January 1948 decided on a grant of 2 and a half billion lire for the 1947-48 sericulture season.

The sugar industry in Greece

Up until now Greece has had no sugar industry. The Greek Minister of Agriculture is considering setting up seven to ten sugarbeet factories, the total production of these could reach 70 to 90,000 metric tons of sugar per annum. This is a long-term project and cannot be undertaken until political conditions in Greece have settled down. There has been talk, however, of establishing an initial factory in Macedonia which would have an annual production of 4 to 6,000 m.t. According to specialists at the Ministry of Agriculture, sugarbeet cultivation should be perfectly successful in Thessaly and Thracia if the necessary irrigation work is undertaken.

Italian sugar industry in 1947

From the 56 sugar factories which were in action in Italy before the war, 52 were still intact at the end of the war.

During the 1947 season these factories worked up 2,600,000 metric tons of sugarbeets against 2,200,000 m.t. in 1946. During these years the acreage planted with sugarbeets amounted to 100,000 hectares against 140,000 ha. in 1942. The sugar production for 1947 is estimated to 300,000 m.t.

Sugar production

Estimates for 1947-1948 sugar production in the Netherlands amounted to 222,000 metric tons, gross weight, compared to 238,000 m.t. in 1946-1947.

In central Poland 50 sugar factories have been rebuilt and put into operation, whereas 22 factories are working in the regained western territories (Pomerania and Silesia) under Polish administration. According to production plans this latter area should produce 22,000 m.t. of the total production of 480,000 m.t. anticipated for the country as a whole. It is hoped that it will be possible to export 150,000 m.t.

It should be noted that the original stock, 1 September 1947, amounted to 40,000 m.t. The amount available becomes 520,000 m.t. if one adds this to the production figure of 480,000 m.t. Polish con-

sumption rose to 330,000 m.t. in 1946-1947, it is estimated that it will amount to 350,000 m.t. in 1947-1948.

There were altogether 97 sugar factories working in Czechoslovakia during the season which ended December 1947. Two actual refineries were working that year (most of the sugar factories produce refined sugar themselves). A certain number of factories only began to work when others had already finished; this was on account of the unusually short season during which 2,045,000 m.t. were worked in the factories. The average yield of 12 m.t. per hectare which was calculated for Czechoslovakia as a whole does not represent the weight really harvested which the Bureau of Statistics has estimated at 14 m.t. (13.6 for Bohemia, 16.3 for Moravia, 11.5 for Slovakia). The Bureau of Statistics estimated the damage done to the growers by the drought at 1,342 million Kcs., or about 27 million dollars compared to a normal year.

The Italian Economic Committee consider that at least 125,000 hectares should be grown to sugarbeets in Italy.

Reconstruction in Poland - Present output and export plans

Prewar wool requirements of Poland's textile industry amounted to 45,000 tons a year. While not more than 5,000 tons of wool were produced by the country's own sheep, four-fifths of the native wool clip were processed into coarse textiles by the farmers themselves and only one-fifth found its way to the mills. Thus nearly 98% of the factory requirements had to be covered by importation.

The post-war situation in the industry has been marked by a considerable reduction of both the total wool requirements (now estimated at 18,000 tons p. a.) as well as the reduction of the native wool clip. Out of the 1.75 million sheep in what forms Poland today, not more than 800,000 have survived the war.

Rehabilitation plans drawn up for the Polish woollen textiles industry do not envisage any substantial reduction, let alone elimination of wool imports. The Poles hope, however, to expand in the next few years their native wool clip to 10,000 tons and simultaneously the level of consumption of wool in the mills to 50,000 p. a.

Bielsko, Poland's principal centre of woollens production has suffered only moderate direct war damage, but much more serious losses were sustained by the town's industry as a result of excessive wear of machinery under the German occupation. A serious situation has currently arisen through the slow rate of replacement of wool stocks and a shortage of dyes, two factors reflecting the paucity of Poland's foreign exchange resources. Nevertheless Bielsko's pre-war contacts with foreign suppliers have in part, been resumed and wool consign-

ments have already been received from Australia, South Africa and the U. S. S. R.

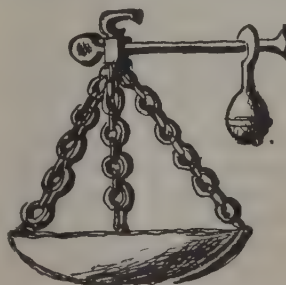
At present sixty-five works are in operation in Bielsko and the surrounding area; twenty of them specialize in the production of carpets, hats, cotton goods and twine. The remaining forty-five work exclusively on the production of woollens. They will soon be subject to reorganization into 28 integrated concerns, each of them controlling a full range of textile manufacturing and processing plants.

The Bielsko woollen industry now employs more than 5,000 hands and an indication of its productivity is offered by the following production summary for March 1947. The month's output included, inter alia, 558,000 yards of cloth, 13,230 lb. of padding, 592,000 lb. of yarn and 15,310 yards of blanket.

A confirmation of the maintenance of pre-war quality of the products is given by the volume of inquiries made by foreign, including British buyers. Actual export quotas have already been allotted for Sweden and Russia.

The other important centre of Poland's woollen industry is Zgierz, a town near Lodz. The amalgamation of two of the town's biggest works has contributed to a substantial improvement of the industry's efficiency and an alleviation of the acute labour shortage existing in the area. Difficulties in securing the return of older workers have led the management to setting up of emergency courses for the rapid training of as many young workers as possible. Up to forty per cent. of labour now working on looms have thus been schooled. The factory now employs some 1,100 hands and its monthly output is estimated at between 76,500 and 87,000 yards of woollen textiles. (From Wool Review, February 1948).

ECONOMICS AND MARKETS



Food prices in the Netherlands

(Sent by the Netherlands National FAO Committee).

The Netherlands Minister of Agriculture, Fisheries and Food commented in a speech broadcast on 9 January, 1948, on the agricultural price policy of his country; the gist of his remarks is given here:

Before the war the Netherlands imported large quantities of bread grains for both human and

animal consumption. These imports are now considerably curtailed because of the present world food shortage which has also been the cause of a great rise in the international price level since 1939.

By keeping strictly in check wages and prices the Government has succeeded in maintaining a low level of inland prices, so that life in the Netherlands is very cheap in comparison with life in other countries; and the possibilities are increased of competition in foreign trade, which is a decisive factor in economic recovery.

To keep the prices of foodstuffs as low as possible and thus prevent the widening of the gap between wages and prices, the Government pays the difference between world market and home prices out of the Agricultural Price Balance Fund, which has meant an expenditure of hundreds of millions of florins.

If prices in the world market fall, the subsidy will automatically decrease. Should the price difference become stationary, a revision of the policy might become necessary; and should the world market prices rise, the Government subsidy would not be continually increased, as a subsidy policy carried out too far may lead to inflation.

In view of the country's critical financial position, when the price of milk paid to the dairy farmers was increased by 3 cents per litre, it was decided that this increase should be paid, not by the Agricultural Price Balance Fund which would have entailed a further subsidy expenditure of tens of millions of florins, but by the consumer. It was at the same time decided to make margarine available on the butter coupon, for those who find butter too expensive. Since Vitamin A is now added to the margarine content, there is practically no difference in the nutrition value of the two products.

With regard to the prices of vegetables, these were too low before the war to afford a reasonable income to the market gardener. The difference in the price paid to the market gardener and that paid by the consumer is still too great in some cases, but measures have been taken to ensure that winter vegetables are available at low prices.

Fruit-prices meet with satisfaction. A rise in the course of the winter due to the costs of storage will be only normal.

The Food Minister, after discussing a few alterations to be made in the rationing, stated that the Government's policy was the furthest possible decrease in all prices; and that the announced increases in food prices could be balanced by decreases in prices of other goods.

Price fixing in Switzerland

(Sent by the Swiss National FAO Committee)

The general price index for agricultural produce (August 1939 = 100) stood at 211 in January 1947, as against 197 the year before. During this period, the price of the different commodities had in-

creased to the following extent: Slaughter cattle 6.6 per cent., milk 10.5 per cent., bread cereals 16.0 per cent., table potatoes 7.8 per cent., sugarbeets about 14.3 per cent. The price of pork dropped slightly and forage cereals prices remained stationary.

As regards production costs, the most marked increase was the rise in wages paid to workers not pertaining to the cultivator's family. From January to the end of December 1947 wages had increased by 12 per cent. Imported feedingstuffs, chemical fertilizers, building material, machinery and instruments also rose in price. On the other hand, some commodities such as seed, parasiticides and fuels have become much cheaper. During the period in question, the general index for agricultural production costs rose 6 per cent. It should be recalled that this index does not indicate the fluctuations in the total production costs, since it covers only 60 per cent. of these costs and does not take into account the fluctuations in quantity.

The Swiss Farmers' Secretariat, basing its calculations on farm accounts, estimates the increases in production costs during 1947 at 11 per cent.

In early February 1948 important economic associations signed an agreement relative to the fixing of prices and wages with a view to checking the rise in cost of living and, consequently, to maintain the purchasing power of the Swiss franc at the highest possible level. It is hoped that production costs will stop increasing.

Because of increased imports and an effective recovery in the supply of local animal products, food supplies in Switzerland have undergone a marked improvement. There still remain some difficulties. Switzerland has to import foodstuffs: prior to the war, 48 per cent. of the requisite calories were obtained from abroad. In 1946 and 1947, imports, especially essentials such as cereals and fats, were insufficient to meet the needs of an increased population.

Food imports into Switzerland.

Year	Total in tons
1937/39	1,677,677
1945	620,930
1946	1,077,609
1947	1,357,209

As imports and home supplies have increased, food restrictions have again been relaxed in the last few months. In this respect, the pressure of public opinion also made itself felt.

The discontinuance of milk and dairy products rationing was first contemplated in the spring of 1947. Under the least favourable conditions rationing is expected to end after the green foddering period starts in 1948.

The drought which prevailed at the end of summer and during last autumn interrupted the natural increase in dairy production to such an extent that an unprecedented crisis was feared. Compared with those for the corresponding months in 1946, milk deliveries last year varied as follows:

January	—	3.4%
February	—	5.9%
March	—	5.4%
April	—	14.3%
May	—	1.0%
June	+	0.2%
July	+	2.2%
August	—	3.8%
September	—	13.0%
October	—	20.4%
November	—	19.3%
December	—	3.5%

Since last autumn the federal authorities have been obliged to take special measures in order to ensure an adequate supply of feedingstuffs. Large quantities of hay and concentrates, particularly maize and oilcakes, were imported and sold at reduced prices in the regions suffering from the drought. These measures soon had effect and as early as December, production again rose. The figures for January 1948 are 7 per cent. higher than those recorded the year before. On the other hand, imports of butter and cheese were appreciably higher in 1947, and large stocks of these commodities were set up. Consequently the Federal Council was able to lift the restrictions on the consumption of milk and dairy products last February.

Agricultural credit

On 3, February 1948 a French Interministerial Board decided that, through the intermediary of the 'Crédit agricole', medium term credit may be made available to farmers in order to cover expense incurred for equipment, such as the purchase of tractors and other farm machines. A program for the financing of industries connected with agriculture will be drawn up.

Export of medicinal herbs from Hungary

During 1947 until the middle of November Hungary exported 85 wagon loads of medicinal herbs mainly to Great Britain, Belgium, Czechoslovakia, France, Switzerland and Sweden. Smaller quantities were delivered to Austria, the Netherlands, Norway, Italy and the United States. The export was divided as follows (in wagon loads): camomile 21, rose-hips 5, elder 4.5, nettle leaves 3, stramonium

leaves 3.5, marsh-mallow roots 3.5, juniper berries 3, liverwort 2. Of cultivated herbs 5.5 wagon loads of coriander and 1.5 wagon loads of peppermint leaves were exported.

Exports and imports in Turkey

According to official Turkish statistics tobacco, fruit and raw opium will be the most important of Turkey's exports. In December 1947 tobacco accounted for 27 %, fruits for 23.4 % and raw opium for 18.3 % of the export volume.

Hazel nuts, shelled and unshelled, head the fruit list. Countries importing Turkish fruit are the following, in order of importance: Great Britain, Palestine, the United States, Egypt, Switzerland, Belgium, Ireland, South Africa, Canada and Brazil. Countries importing tobacco are: Egypt, Sweden, Holland, Palestine, Hungary, Switzerland, Italy and Belgium.

Turkey also exports grains and cereals, oilcake, fresh and salt fish, dolphin oil, eggs, hides, goat hair, mohair, wool, hemp, flax, poppy-seed, coal and antimony.

The following are among the articles imported by Turkey: caustic soda, cotton, liquid fuel, chemicals and drugs, paper, manufactured products and building materials.

Trade agreements

A trade agreement has been signed between Greece and the German Economic Administration and the Anglo-American Joint Export and Import Agency. For an amount of \$ 8,500,000 Germany will supply Greece with industrial equipment in exchange for agricultural products.

* *

On 12 February 1948 a trade agreement between Argentina and Great Britain was signed at Buenos Aires providing for the purchase by the U.K. Government from the Argentina during the remainder of the year 1948 and early 1949 of essential foods and animal feedingstuffs valued at about 110,000,000 pounds sterling.

Great Britain has sold 12,000 miles of British railway lines in Argentina to this country for 150 million pounds sterling. These lines will be taken over by Argentina on 1 March. Furthermore Great Britain will deliver 2.5 million cubic metres of petroleum products (mainly fuel oil, raw petroleum and benzine), and 1 million metric tons of coal. Besides Great Britain will send 10,000 m. t. of agricultural machinery and tools, 75,000 m. t. of steel, 34,000 m. t. of tin, 1,000 m. t. of asbestos and about 50,000 m. t. of chemicals. Finally Great Britain will be able to sell in Argentina non-essential goods to the value of £ 10 million. On the other hand Great Britain will receive: 420,000 m. t. of meat,

1,272,000 m. t. of maize, 85,000 m. t. wheat and bran, 20,000 m. t. of linseed oil, 100,000 m. t. of oil-cakes and 45,000 m. t. of animal fats.

The debt of 117 million for meat delivered to Great Britain during the war, has not yet been settled.

* *

Speaking at the Press Conference on February 10th, the British Food Minister emphasized the importance of the **Anglo-Australian Egg Agreement** which comes into force on 1 July next for five years. The Agreement provides for the shipment of increased supplies of shell eggs to this country in the winter months, when European production is low. Provision is also made for a substantial increase in the shipment of egg products. It is hoped that by 1951 Australia will be shipping about 375 million eggs a year — sufficient for 8 allocations, as compared with 4 allocations in 1947.

Remarking that the agreement is the first fruit of the discussions now proceeding between the Australian Government and the United Kingdom Food Mission, Mr. Strachey expressed his gratitude to the Australian authorities for the efforts they are making to step up agricultural production in spheres which are important in this country.

* *

The following details on the **Anglo-Danish Trade Pact** may be added to the information we published on pages 215 and 312 of Nos. 3 and 4 of this Bulletin :

Details of the new trade agreement between Denmark and the U. K. were announced in Copenhagen on Sunday, 22 February by the Danish Foreign Office.

Denmark is to send Britain 40,000 tons of butter in the period ending 30 September this year.

During the same period she will also deliver to Britain 80 per cent. of her exportable surplus of bacon. It is estimated that this will be about 22,000 tons.

Eggs will be exported according to the agreement made last November under which Denmark will deliver to Britain 85 per cent. of her exportable surplus at a price equivalent to 3.64 kroner per kilo (about one shilling and sixpence per lb.).

It is estimated egg deliveries will total about 18,700 tons.

"The prices now agreed are considerably higher than prices hitherto paid to Denmark by Britain", the announcement said. "The price of butter is increased about 33 per cent., bacon 40 %, and eggs 48 %".

The minimum quantities of British exports provided for under the agreement include 870,000 tons of coal and 55,000 tons of iron and steel.

The agreement deals with all important questions

concerning trade between Denmark and Britain, the announcement said.

It contains a clause, under which each of the two countries is willing at the request of the other to discuss changes in the agreement if conditions of mutual trade alter appreciably.

* *

It was announced on 2 March that a trade pact had been concluded with Finland whereby Finland will supply the **United Kingdom** with 190,000 tons chemical wood pulp, 30,000-40,000 tons of mechanical wood-pulp, as well as pit-props, sawn softwood, plywood and other timber products. Contract terms for certain of these products are still under negotiation.

The U. K. is to supply Finland with 500,000 tons of coal and coke and 40,000 tons of steel, which will permit Finland to resume the issue of import licences for some other goods.

* *

An **Anglo-Italian** agreement was concluded in London, 28 January 1948, involving an annual exchange of trade to the value of 45 million pounds sterling on both sides for various products.

The products that will be traded between the two countries have been divided into two categories: products of primary necessity and less necessary products.

Among the English products in the first category that will be imported by Italy are large amounts of wool, rubber, mineral oil, hides, tin, dyes, etc. Products in the first category that will be exported by Italy comprise hemp, yarn, mercury, various industrial products, drugs and large quantities of fruit and market-garden produce.

A high percentage of the sum total is represented by items of the second category which include Italian exports to England of marble, oranges, silk, rayon, woollen goods, wine, handicrafts, whereas English products to be exported to Italy comprise a certain quantity of machinery and industrial products.

* *

In a statement issued on 13 January the British Treasury gave details of the revised monetary arrangements recently agreed on between the **British** and **Portuguese** Governments. The two Governments will work closely together to encourage trade exchanges at the highest levels and to maintain an approximate balance of payments. Facilities given by the Portuguese Government for the importation of goods from the United Kingdom will enable the United Kingdom to increase its imports from the Portuguese monetary area. Among the imports to the United Kingdom are tinned sardines and port wine from Portugal, the ban on the import of these articles having been abolished, and of wax and oil seeds from the Portuguese colonies. In exchange,

the United Kingdom will send to Portugal modern machinery, automobiles, and agricultural equipment.

Portugal has placed orders for ship-building with British firms and for tin for the manufacture of sardine tins. Among the articles which she will import from the United Kingdom are: cranes, electric and telephone equipment, copper sulphate and ammonia sulphate, besides raw wool, and cotton. This new agreement will almost completely satisfy Portugal's import needs for the year of 1948.

* * *

On 13 December 1947 a trade agreement between the Netherlands and Austria was initialled at Vienna.

After approval by the two Governments the agreement will come into force and will be valid for a year.

According to agreement this trade between the two countries will only be possible on a basis of private barter.

Among the goods to be exported from the Netherlands to Austria there are:

	Quantities metric tons	Value in 1,000 florins
Rayon yarns	200	
Rayon yarns for ribbons . . .	50	
Linen yarns	5	
Textile for uppers (of shoes) .		250
Unspun flax	50	
Reed for the manufacture of baskets		50
Crude rubber		100
Technical articles for the textile industry, such as shuttles		30

Fish:

Fresh herrings	1,500
Smoked herrings	500
Fresh sea fish	300

Fresh vegetables:

Cabbage	1,500	
Carrots	400	
Beetroot	500	
Onions	1,000	
Chicory (roasted) (for coffee) .		
Caraway seed	300	
Mustard seed	200	
Milk powder	50	
Cheese		
Sugarbeet seed (1948 crop) . . .		
Agricultural and horticultural seeds		1,000
Seed potatoes	5,000	
Linseed	50	
Hatching eggs, chicks		
Dextrin, glucose and starch preparations		
Black pepper	100	
Miscellaneous		1,500

Among the products to be exported from Austria to the Netherlands there are various kinds of machinery for industrial purposes and electrical apparatus.

Furthermore various kinds of printing and writing paper; sawed pine-wood (100,000 m.³); poles, (2,500 m.³) hardwood and soft wood boards (120,000 m.³); oak veneer (400,000 m.³); various building-materials (about 4,000 metric tons); rubber articles, also for medical purposes (for fl. 150,000); ready made clothes, knitted goods, hats (for fl. 400,000); various leather goods (for fl. 100,000).

* * *

Belgium is experiencing an unprecedented boom in flax exports, and has shipped flax to practically every country in the world. Since the end of the war the quantities shipped amount to 62,240 tons of flax fibre, 17,932 tons of tow and 13,449 tons of waste. The greater amount of these quantities were bought by Great Britain and France who, between them, bought 77,000 tons of flax and semi-manufactures.

Under a newly concluded trade agreement Belgium is to export 2,000,000 francs worth of jute cloth to Finland.

* * *

The trade agreement between Belgium and the Soviets was signed in Moscow on 18 February 1948, according to authoritative reports from Brussels.

The Soviets have agreed to ship to Belgium 400,000 tons of wheat.

Under the new agreement Russia will further supply Belgium with timber, pit props, manganese, asbestos and other minerals, while Belgium will export to Russia 50,000 tons of iron goods, copper rails, rayon fibre, as well as other goods.

* * *

A trade agreement for the present year was signed, 28 February 1948, between Denmark and the Belgo-Luxembourg Economic Union. The following are some of the goods which Belgium will export to Denmark: 150,000 metric tons of iron and steel, semi-manufactured products, machinery, various metals, chemicals, glass and textiles. Denmark will furnish Belgium with 15,000 m. t. of butter, slaughter cattle, pork fat, bacon, horsemeat, cheese, eggs, condensed milk, seed potatoes, fish and other food products. The exchange will amount to about 240 million crowns in both directions.

* * *

A trade agreement has also been signed between Denmark and Sweden for the period 1 February 1948 to 31 January 1949. Exports from Sweden to Denmark will comprise goods to the value of about 166 millions crowns (wood, wooden articles, cellulose, paper, carbon, iron, steel and machinery);

Denmark will export eggs, cheese, meat, sugar, malt, machinery and equipment to Sweden to a total value of about 42 million crowns.

* *

Denmark and Switzerland have concluded a trade agreement for the period 1 January to 31 December 1948. Denmark will export 2,000 metric tons of butter, 20,000 head of cattle, 1,500 m. t. of porkmeat, 1,400 m. t. of eggs, fish, seeds and other agricultural products, to the total value of 74 million crowns; whereas Switzerland will export textiles, equipment and machinery, chemicals and drugs, watches, etc. to the value of 64 million crowns.

* *

Denmark has signed a certain number of trade agreements for the year 1948. An agreement with Czechoslovakia, which covers the period 1 September 1947 to 31 August 1948, provides for exchanges to the value of 58 million Danish crowns in both directions. Whereas Denmark will chiefly export butter, pork fat, fresh and tinned fish, eggs, cattle and seed, Czechoslovakia will mainly deliver machines, sheet metals, glassware, textiles and chemical products. An agreement with Yugoslavia which covers a period ending 28 June 1948, provides for the Danish export of seed, casein and machinery to the value of 4 million crowns, and the import of lead, soda, hops, hemp and wood to the value of about 11 million crowns. Another agreement, signed with Poland, 5 December 1947, which covers the period up to 30 September 1948, provides for Polish exports of coal, coke, chemical products and dyes to the value of 110 million crowns; in exchange Denmark will export, principally, seed, pork fat and margarine to the value of 70 million crowns. Finally, 2 December 1947, an agreement was signed with Hungary covering the period up to 30 September 1948. Denmark will supply, among other things, 5 million crowns worth of seed, intestines, cryolite, woollen waste and fish in exchange for feathers, down, lamps and radio parts.

* *

Hungary is exporting to Switzerland considerable amounts of first quality Hungarian salami under the trade agreement concluded in December 1947 between the two countries. The quantity involved is understood to be about 20 wagons, at a price of 10-11 Swiss francs per kg.

* *

A trade agreement for 1948 has been concluded between Hungary and the Netherlands. This agreement calls for the export from Hungary to the Netherlands of 10,000 metric tons of maize, 1,000 m. t. of sunflower-seed oil, 500,000 square

meters of wood for veneers, and lead, etc., to the value of 20 million dollars. Export from the Netherlands to Hungary will include 6,000 m. t. of barley, 5,000 m. t. of seed potatoes, 1,000 draught horses, 1,000 m. t. of rayon yarn, 2,500 m. t. of rubber and of coke.

* *

The Italian press announces that the second meeting concerning the renewal of exchanges between Italy and Austria ended, in January, at Udine, after problems dealing with the economic relations between the two countries had been examined. The Italian and Austrian representatives for wood and forest economy reached an agreement on the conditions for the transfer of Italian labour to Austria for forestry work and on commercial exchanges between the two countries.

* *

In the course of January 1948 additions were made to the trade agreement drawn up on 5 November 1947 between Italy and Bulgaria in order to regulate the exchanges between the two countries. The agreements cover a period of one year and may be renewed from year to year.

The trade exchanges are to be effected on a reciprocal basis after approval by the competent authorities of the two countries, List A giving the Italian exports to Bulgaria comprises: chestnut extract, citrus oils, farm machinery and spare parts, farm tools and equipment not including tractors, harvesters and binders; lucerne seed, oranges and mandarines.

In List B, Bulgarian exports to Italy include: maize, sorghum, sunflower seed, dried beans, live and dressed poultry, eggs, raw tobacco, molasses alcohol, dried beech-wood, plywood for packing.

* *

A trade agreement has been reached between Norway and Finland for the period 1 November 1947-31 October 1948. Goods to the value of about 25 million Norwegian crowns will be exchanged. Among the goods that Norway will export to Finland according to this agreement are: salt herring, dried fish, medicinal cod liver oil, cod liver oil for industrial and veterinary purposes, refined herring oil for dispensing purposes, sulphuretted oils, fatty alcohols and fatty solvents for use in the textile and tanning trades, solidified whale oil, calcium nitrate (the fertilizer distribution year runs from 1 July 1947 to 30 June 1948) nitrogenous products for technical uses, calcium carbide, argon and other rare gases, iron containing titan-

ium, dyes, acid-resisting building material, sulphur, talc and other powdered ores, magnesium, iron alloys and special steels, aluminium and semi-finished aluminium goods, etc.

For her part Finland will send Norway wooden houses, wood for building, birch boards, birch plywood, wood veneers for furniture, bobbins, sulphated cellulose, cigarette paper, tracing paper, cotton thread, unbleached cotton for factory use, linen goods, ceramics, insulators, porcelain insulating material, meteorological equipment, electrical fittings and seeds (*Alopecurus pratensis*).

Poland and Norway signed a trade and barter agreement for 1948 in Oslo on 4 February 1948.

Poland will deliver coal, coke, sugar, iron goods, minerals and textiles, while Norway will send herrings, cod liver oil, fats, paper-pulp products and artificial manures.

Quotas were also agreed for the export of Norwegian pyrites, pig iron, various metals grindstones and horses.

* *

Before the war Poland exported eggs to Great Britain, Germany, Austria, Italy and Switzerland and in 1938 the value of this export amounted to 39 million zloty.

In the current season Poland has exported 30 million eggs to Great Britain, 1.5 million to Switzerland and 0.5 million to Sweden.

Before the war Poland received an average of 10 English shillings for 120 eggs. At the moment an amount of 25 s. 9 d. is paid for 120 eggs.

The Central Bureau of the Polish preserving-industry has made an export transaction for the delivery of the first quantity of 300 metric tons of preserved meats to Great Britain. The order will be executed in the course of January and February 1948 by four State meat factories, namely in Bydgoszcz, Gorzow (voivodeship Pronan), Torun and Debice (voivodeship Cracow).

* *

A trade agreement was signed 5 March 1948 between Holland and Italy. The main items decided on for export from Italy include: machinery (12 million florins), motorized vehicles (6,800,000 florins) dyes (3 million florins) textiles (12 million florins) citrus fruits (8,000 metric tons) as well as many other traditional Italian export products such as handicrafts. The principal quotas decided on for import into Italy include: eggs (40 million) cattle (4,500 head) potato flour (6,000 metric tons) rubber (2,000 m. t.) tin (400 m. t.) products of the Philips factories and cast-iron. Exchange will be made on a reciprocal basis only.

A new trade agreement for 1948 between Sweden and the Netherlands provides for an increase of 25% in the amount of goods exchanged between the two countries compared with the 1947 figure. The new agreement covers about 515 million Swedish crowns, 270 million for the Netherlands exports and 245 for the Swedish exports. The chief products which will be exported from the Netherlands to Sweden are textiles, agricultural products, flower bulbs, chemicals, coke, crude iron, electro-technical equipment. The chief Swedish products which will be imported by the Netherlands are wood, wood pulp, paper, matches, iron and steel.

* *

Trade between the Netherlands and Czechoslovakia for 1948 has been regulated in an agreement which was signed on 10 February last.

A brief summary of the goods mentioned in the agreement follows below.

Export from the Netherlands to Czechoslovakia :

Spices, tobacco products, seed potatoes, various kinds of vegetables and vegetable seeds, flower bulbs, cut flowers, nursery products, cows in calf, breeding rams, ewes, slaughtered poultry, various kinds of fish including salt and fresh herrings, fresh eggs, cocoa-butter and substitutes for it, special food-stuffs, fish and meat preserves, wood from overseas territories, flax and flax products, rayon yarns, kapok, woollen blankets, leather for uppers, rubber and articles made of rubber, various kinds of machinery, among others for the tobacco industry, electrical apparatus for various purposes, metal products, aeroplanes, river craft, potato flour, corn starch, lubricating oil, various chemical and medical products, paper articles, books and periodicals, etc.

Export from Czechoslovakia to the Netherlands :

All kinds of seeds, nursery products, spirits mineral water, mushrooms prepared in various ways, nogs, wood, textiles made of cotton, wool, linen, rayon, etc., rubber shoes and boots, tyres for motocars and motor-cycles, various technical, surgical and sanitary articles made of rubber, leather articles for industrial purposes, various kinds of paper and cardboard, wooden furniture, various wooden products for industrial purposes, glass for chemical and technical purposes, glassware incl. crystal, pottery, various kinds of steel, steel products, railway carriages, machines for various kinds of industry, agricultural machinery, tractors and ploughs and spare parts, electrical machines and instruments, tools for various industries and handicrafts, chemical and medical products, medicinal herbs, etc.

After negotiations at Moscow the mutual trade between Sweden and the Soviet Union during 1948 has been estimated at about 30 million Kroners (\$ 8,300,000). For 1947 the estimate was 100 million Kr. (\$27,800,000); the real turnover, however, was considerably smaller. The Swedish export will comprise: iron and steel, ball-bearings, tungsten wire, machinery, and also breeding cattle and pigs, whereas the Swedish import from the Soviet Union will, among others, consist of: grain, manganese ore and chrome ore, anthracite, asbestos. The deliveries executed by Sweden according to the 1946 credit-agreement have not been included in this trade agreement. The same applies to the Swedish import from the Russian zone in Germany.

* *

An agreement was concluded, 2 February 1948, between Sweden and the Belgium-Luxembourg Economic Union (including the Belgian Congo and territories under the Belgian Protectorate), valid for the present year and to the value of about 400 million Swedish crowns' worth of goods. Sweden will export mainly metallurgical goods, ores, iron and steel castings, chemical, stone and masonry. Sweden will also export food and agricultural products such as fresh and preserved fish, wood, (sawn wood, pitprops, telegraph poles, etc.) as well as wood pulp, cardboard and paper.

For their part the Belgium-Luxembourg Economic Union will export to Sweden, among other articles, coal, chemicals, rubber from the Congo, non-ferrous metals, machinery, metal articles and many agricultural, horticultural and food products such as fresh fruit, preserved fruit and vegetables, growing plants, flower bulbs, medicinal plants, hops, coffee, roasted chicory, bananas, beans, Indian corn, fats from the Congo (palm, peanut, sesame and cotton-seed oils). The Belgium-Luxembourg Economic Union will also export hides and leather articles, textiles (wool, cotton, linen, rayon, jute, silk, felt) as well as crude glass, window and mirror glass.

* *

The trade agreement between Sweden and Hungary for 1946 which expired 31 July 1947 has been extended to 31 July 1948. About 17 million crowns worth of goods will be exchanged. Sweden will deliver iron ore, cellulose, paper and paper waste, ball-bearings, tungsten filaments, machinery and engines, iron and steel products, drugs and chemicals, furs, fish and horses. Hungary, for her part, will export to Sweden hardwood, iron, aluminium products, electric motors, meters and other electrical fittings, radio parts, food products, woollen, cotton and artificial silk textiles.

A new agreement has been concluded between Switzerland and the Belgo-Luxembourg Union. Switzerland will export to Belgium, Luxembourg

and the Belgian Congo: woollen yarns, 6.4 million Swiss francs; ready to wear and hosiery, 11 million Swiss francs; wool carpets, 0.3 million Swiss francs; all sorts of fabrics, 24 million Swiss francs. Belgium will supply to Switzerland during the twelve months to come: 1,200 tons scoured wool, 800 tons combed wool, 500 tons worsted yarns, 800 tons woollen yarns. Belgium will also export to Switzerland 5 million francs worth woollen blankets, 50 millions woollen carpets, 50 millions sundry woollen fabrics and 60 millions of ready to wear and hosiery.

* *

A trade agreement for a limited period was concluded between Switzerland and the U.S.S.R., 17 March 1948. The agreement lays down the general principles which will control Russo-Swiss exchanges and will be submitted to the governments for ratification. The two governments have agreed to take measures to facilitate transport by rail, sea and air and to improve their postal, telephonic and telegraphic communications in order that parcel post may be introduced.

The trade agreement covers exchanges that will take place between 1 April 1948 and 31 March 1949. The Soviet Union will send cereals mainly (100,000 metric tons of bread grains), wood, petrol and raw materials to a total value of 120 million Swiss francs. Switzerland will supply machinery, instruments and equipment, dyes, pharmaceutical products, watches, and such consumer goods as materials, shoes, livestock (1,000 head), feedingstuffs. The value of these goods will amount to 75 million francs. The Soviet Union will place orders with Swiss industry for goods to the value of 80 million francs, mainly machinery, which will be delivered during the next three years.

* *

The new trade agreement between Czechoslovakia and Hungary gives room for an extension of Czechoslovak commercial relations. Hungary is interested in Czechoslovak ironware, machinery and instruments for crafts and factories, glass for the building-trade, glassware, tiles, chemicals, chemical products, paperware and paper, cheap shoes made of leather and rubber, malt, wood, coke, iron ore and bricks.

Hungary offers Czechoslovakia among others: eggs, salami, wine, fruit, vegetables, cattle and game, preserves, leather, pulse, paprika, and seeds. Furthermore industrial products: electrotechnical products, oils, some kinds of chemicals and extracts for medicines.

* * *

The trade agreement signed at the end of December 1947, between Czechoslovakia and Rumania for 1948, provides for the following deliveries on behalf of Rumania: 250,000 tons of maize,

6,000 t. of oilseeds, 6,000 t. of wine, 15,000 of fruit and vegetables, as well as livestock, and oil and chemical products; Czechoslovakia will furnish in exchange 45,000 t. of coke, 7,000 t. of steel tubes, 300,000 ploughs and other tools and implements.

A trade agreement between the U.S.S.R. and Norway, concluded in February 1948, doubles the volume of goods exchanged up until now. Norway will supply mainly 20,000 metric tons of whale oil and 30,000 m. t. of salt herring. In exchange the U.S.S.R. will send 100,000 m. t. of wheat and 50,000 m. t. of rye, this amounts to 40 % of Norway bread grain requirements. These supplies will carry Norway through to the next harvest.

At the end of January 1948 an agreement was made between the Soviet Union and Poland concerning the mutual delivery of goods for the period 1948-1952. This agreement determines the basic quotas of the mutual deliveries to the total amount of over 1 million dollars.

The Soviet Union will deliver to Poland: iron, chromium and manganese ore, petroleum products, cotton, aluminium, asbestos, motorcars, tractors and other goods.

Poland will deliver to the Soviet Union in exchange: coal, coke, textiles, sugar, zinc, steel products, railway equipment, cement, and other goods.

Together with the yearly determination of the basic quotas the prices will be fixed on the basis of the world prices.

At the same time an agreement was made concerning the delivery of factory equipment to Poland on credit conditions. According to this agreement the Soviet Union will deliver to Poland during the period 1948-1956 factory equipment and particularly machinery for the new large steel factory in Poland. The goods to be delivered are: electrical equipments, machinery for chemical factories (fertilizers, soda, carbide) as well as machines for the metallurgic industry, textile industry and other branches of industry as well as machines for the reconstruction of towns and harbours. In order to cover these deliveries the Soviet Union will give Poland a credit of 450 million dollars. Moreover the Soviet Union will deliver 200,000 m. t. of grain to Poland also on credit conditions so that during the current agricultural year Poland will receive 500,000 m. t. of grain, altogether, from the Soviet Union.

Yugoslavia on 17 February signed a trade agreement in Berlin with the Soviet zone of Germany.

As a result, Yugoslavia will supply the Soviet

zone with raw materials for industrial production, mainly hemp, tobacco and agricultural produce, and receive machines, electro-technical equipment, tools and industrial goods.

FISHERIES



Reorganization of fishery in Greece

The ten-year plan for fishery reorganization in Greece has been drawn up and approved.

The requisite credit for the execution of the first part of the program will be assigned to Greek organizations, as yet unspecified. This credit comprises funds in US dollars and in drachmae.

A fund of 795,000 dollars was deducted from the 5,200,000 dollars approved for the overall improvement program covering Greek production. The amount of 4,120,000,000 drachmae will be paid to fishery cooperatives, municipalities and harbour funds.

The work to be undertaken shortly includes:

- the construction of jetties in the ports of Piraeus, Salonika, Patras, Kavalla, Mytilene, Candia and Volos; cold stores are to be set up at each of these ports capable of storing 10 to 30,000 okas of fish, 1 oka = 1.25 kg.

- the establishment of depots at Styliis, Kymi, Nauplia, Paros, Portolago and Missolonghi,

- construction of new fishing-boats fitted with refrigerator equipment;

- construction of refrigerator motor lorries.

The State has agreed to a considerable rebate in the selling price of the American trawlers and purse seine boats offered by UNRRA and granted easy terms for payment; most of these vessels were sold at the beginning of January and distributed among the chief fishing centres.

One of these trawlers brought in 24,000,000 drachmae worth of fish from only one trip to the fishing-banks of the Dodecanese.

The Fishery Section of the Agricultural Bank of Greece has given loans to fishery companies to enable to convert some of the vessels so that, according to season, trawling or purse seining can be practised, and to fit them with freeon refrigerator equipment;

the spun glass insulated holds have a capacity of 7 tons with a temperature which can be reduced as low as -4° to -12°C .

Dry ice will be manufactured by a Greek company at Eleusis, near Athens, the daily output to amount to 6 tons.

The ship for oceanographic research, 'Ohio State', gift of UNRRA to the Greek Government, was assigned to the Fishery Division of the Ministry of National Economy. Mr Stephanidis, fishery inspector who has been charged with the execution of the ten-year program, has been detailed to supervise the fitting out of the ship which can be effected in two months, as soon as the necessary funds have been voted.

The Italian fishing industry is going through a grave crisis; according to Dr. Fidatto, Director of the National Association of fishing-boat owners and fish-processing industrialists, this crisis is due to the following reasons: disproportion between cost of production and sale price; excessive taxation to which must be added the expenses of social security organizations and wage increases. Since the prewar period the wholesale price of fish has gone up 35 %, whereas the price of fuel, lubricants, nets and other fishing equipment has increased by 80 %. The Government has been appealed to with a view to considering the fishery problem in the light of the new cost-of-living.

Czechoslovakia

The exceptional drought in 1947 led the Czechoslovak authorities to speed up the execution of the 5-year program regarding the extension of fish-ponds. It is proposed to increase their surface area by 81,600 acres during the coming five years. Five large fish-ponds, with an area of 2,740 acres, were established in 1947 south of Brno, and another 15 with the same superficies, to the south-east of the same town. Over half the ponds are State-owned. The annual catch, which before the war amounted to 1,200 tons, was 2,000 tons in 1947; it is expected that 2,400 tons will be attained in 1948.

First Expedition to Newfoundland since 1940

After many years of enforced idleness due to the war, the new French trawlers left Saint Malo for Newfoundland to start the 1948 cod-fishing season. Before the war French codfish production amounted to 50,000 metric tons. In 1947, the French fishing fleet, reduced in size and with improvised equipment, brought in 28,000 m.t.

It is hoped that in the 1948 season the catch will reach 40,000 m.t.

(Extract from article in "Le Monde", March 1948).

First number of FAO Fisheries Bulletin

In March 1948 the Food and Agriculture Organization of the United Nations in Washington issued the first number of its Fisheries Bulletin whose publication was recommended in the Second Annual Report of the Director General of FAO to the FAO Conference as a "medium for presenting current statistics and for keeping governments informed of the new developments in the fisheries industry throughout the world". It is intended to cover all the three fields of the FAO Fisheries Division viz., Economics, Biology and Technology; in the first number, however, the stress is laid on economics and statistics as the greater part of the spade-work has already been done in this respect. The experts, especially the editors of fisheries periodicals will find ample material in this bulletin which is going to be published in English, French and Spanish.

International meeting of salt fish producers

On 13 April, 1948 an International Meeting of Salt Fish producers is to open in London as a continuation of previous discussions which took place at Bergen, Norway in September 1946. FAO has been invited to send an observer to the London meeting.

FORESTRY



Second meeting of the timber subcommittee of ECE

(by D. Roy Cameron, Chief, European Forestry Office, FAO)

The organization of the Joint FAO-ECE Secretariat at Geneva to service the Timber Subcommittee of the Economic Commission for Europe and

the results of the first meeting of that body were summarized in a previous note *. The second session of the Subcommittee was held from January 26 to 31 last. Delegates from 20 countries, including for the first time Yugoslavia, participated in the deliberations. Also present at the Session were representatives of the Food and Agriculture Organization, the International Bank for Reconstruction and Development and the International Labour Organization.

Mr. Bernard Dufay, 'Directeur des Eaux et Forêts' of France was elected Chairman and Mr. R. Ropelowski, Director of the Department of Economics, Poland, was elected Vice-Chairman. Mr. Dufay is also Vice-Chairman of FAO's Standing Advisory Committee on Forestry and Forest Products and Chairman of the European Forestry Commission to be convened this spring by FAO. This ensures a very desirable integration of the different phases of the European forestry problem.

The opening meeting of the Second Session was addressed by Mr. F. L. McDougall, Counsellor of FAO, who was present in Geneva to attend a meeting of the Coordination Committee of the United Nations. Mr. McDougall explained FAO's responsibilities in the Forestry field and expressed his appreciation of the extremely happy cooperation between FAO and ECE at the Secretariat level. He pointed out that neither the timber nor the forestry problems of Europe could be considered fully without relation to the whole world situation and suggested that the cooperation achieved at Geneva might prove a satisfactory model in other regions of the world.

The Subcommittee was concerned with the continuing pressure of the monetary exchange problem. It noted that "in the absence of some solution to the difficulties of purchasing power which at present confronts the importing countries, the efforts of the Subcommittee to increase exports must be frustrated and the needs of the importing countries which are essential for the reconstruction of Europe will remain unfulfilled". The situation existing at the time of the meeting was brought forcibly to the attention of the Subcommittee when it reviewed statistics collected from member governments by the secretariat which showed that Europe's essential needs for imports in 1948 amount to 4.25 million standards (a standard is 4.67 cubic metres of sawn timber). However, owing to currency difficulties, the importing countries reported that their effective demand, namely the amount of timber they would be able to buy without external financial aid, amounted only to 2.53 million standards. This figure is about the 1947 volume of imports which by general agreement was quite inadequate to meet essential

needs. The United Kingdom, Europe's largest importing country, announced that it expected to be able to buy only two-thirds of the timber it imported in 1947. The Subcommittee however, realized that developments during 1948 might enable countries to raise imports above those for which they then found themselves in a position to pay.

On the other side of the picture, a review of prospective export availabilities for 1948 indicated that under normal conditions, the total would be only approximately 2.38 million standards, a figure somewhat below effective demand even without external financial aid. The Committee, therefore, applied itself to the consideration of two specific problems. The first of these had to do with the possibilities of increasing European production, a matter which had been discussed at the first meeting of the Committee in October and concerning which certain countries had made promises, providing their special requirements for credits for the purchase of equipment, etc. were met. The Second Session of the Subcommittee was, in fact, preceded by a Working Party which screened the equipment requirements of exporting countries in accordance with certain criteria laid down by the Industry and Materials Committee of ECE at its session in November 1947. The Report of the Working Party showed that provision of special equipment valued at 12.38 million dollars, for which credits were required by four countries would result in the production of an additional 230 thousand standards of sawn softwoods and 180 thousand cubic metres of pitprops in 1948 and 350 thousand standards and 180 thousand cubic metres of pitprops in 1949. The value of this increased production in 1948 would be 39.2 million dollars and in 1949 52.7 million dollars. The Subcommittee considering this increased production to be of great importance in European reconstruction, requested the Executive Secretary of ECE to pursue the matter urgently with the International Bank for Reconstruction and Development and other competent international authorities.

It might be added that subsequent to the Second Session of the Timber Subcommittee additional requests were received from two other countries bringing the total credit requirements to 16.68 million dollars. Production for 1948 would be correspondingly increased to 300 thousand standards and in 1949 to 381 thousand standards, the volume of pitwood remaining the same. The revised value of the 1948 production would be 54.6 million dollars and of the 1949 production 68.8 million dollars.

The Subcommittee also considered the case of Sweden, one of Europe's principal exporters. Sweden did not desire credits, but was in urgent

* See No. 4 February/March 1948, page 317.

need of additional allocations of domestic coke, which would enable her to divert wood cutting from fuelwood to sawlogs. The Swedish Delegate indicated that if his country's additional coke requirements could be met, the production of sawn softwood available for 1948 export could be increased by 100 thousand standards and pitprops by 145 thousand cubic metres.

Immediately after the Timber Subcommittee's session, this request was taken up by the Coal Division of ECE and arrangements have already been made to provide Sweden with the first quarterly allocation of additional coke required.

The second action of the Timber Subcommittee was to register an agreement by all European importing countries to limit purchases for the first half of 1948 to specific figures set out in the report for each country and amounting to a total of 2.7 million standards. This was done to ensure a fair distribution of the available supplies as reported by exporting countries. At a further meeting of the Subcommittee, buying limits for the second half of 1948 will have to be considered in the light of increased production then found to be available, and of increased demand resulting from additional buying power derived principally from ERP.

The Subcommittee examined the imports of timber received by certain countries from Western Germany in 1948 and found that these in fact constituted a substantial and very important contribution to the timber needs of those countries. By reducing demands which otherwise would have had to be secured elsewhere, this German production has a beneficial effect on the whole European timber position. A general review of the European pitprop situation indicated that prospects of 1948 supplies are not far from meeting requirements. The Subcommittee approved of the close liaison maintained between its Secretariat and that of the Coal Committee on this matter.

The Subcommittee recommended that a study be undertaken of technical measures most suitable to achieve economies in timber manufacture and consumption including existing practices in various European countries. This will be a joint project with FAO and the Housing Panel of ECE. Mr. J. Campredon, Director of the Wood Chemistry Institute of France and Chairman of the Wood Technology Subcommittee of the Standing Advisory Committee will serve as FAO representative on a special working party for this project.

The Subcommittee reviewed the first issue of periodic statistics on timber production, trade and prices presented by the Secretariat covering the years 1946-47. It was unanimous in approving the publication of similar statistics on a quarterly basis beginning with 1948. The first issue of these will shortly be available.

It will be noted from the above review that the Timber Subcommittee has taken definite steps towards the solution of the immediate supply problem. Timber is such a key commodity in the European economy that these first achievements are of real importance in the general reconstruction programme.

Setting up of a technical and scientific centre for the timber processing industry in Belgium

(Communication from the Belgian National Committee).

Following a request put forward by the Belgian Federation of Timber Manufacturers, representing the majority of the enterprises connected with the timber trade, the Belgian Government — by Decree of the Regent dated 6/12/47 — has proceeded to set up a technical and scientific Centre for the timber processing industry, in conformity with a recent Decree Law establishing the statute for the organization and operating of the central body instructed to promote and coordinate technical improvement in the different branches of national economy, by scientific research.

The aim of this centre will be to have technical and scientific processes elaborated in order to be able to utilize timber and its allied products in the most rational manner possible devised, and to have new and revolutionary processing methods, as scientific research indicates.

In this respect, the country can be kept to the fore only through systematic and centralized research undertaken by a specialized staff.

Another task of the centre will be to give impetus to scientific and technological research with a view to improving output, quality, the aesthetic aspect and production in processing. These four factors imply the study of many problems which will necessitate, *inter alia*, investigations on the:

physical properties of indigenous, Congo and foreign species, physiological, entomological and chemical properties of timber, suitability of timber for mechanical treatment, combinations; recovery of sawdust, chips and wood waste for the manufacture of blocks, activated charcoal or cellulose.

Among the other studies on the program, mention may be made of those on the resins most suitable for incorporation in unhewn timber, peeled veneer, wood with crooked fibres, timber fibre or refuse, on improved methods of technical training, and on foreign markets' requirements.

The centre will also maintain a documentation and information service. The results of its investi-

gations will be placed at the disposal of all the enterprises, even although the question may have first been raised by only one.

If its program permits, however, the centre may assist individual enterprises to their advantage, but at their expense.

In order to carry out its objectives the centre has full liberty of action and may set up any offices considered necessary, and even grant subsidies to existing organizations and arrange 'study days' and exhibitions.

Considered as connected with this processing industry are the enterprises in Belgium with at least ten workers bound by contract and fully occupied in a branch of manufacture in which wood is the raw material. The affiliation of enterprises engaged in the production, working and processing of wood which are not dependent on the timber processing industry, however, is anticipated.

The staff of the centre is composed of a board including the representatives of timber industries and associations, as well as renowned technical and scientific experts, a permanent committee and a director.

One of the most important tasks entrusted to the permanent committee will be to set up specialized technical centres which will deal with the problems which arise in the various special branches. Thus provision will have to be made straightaway for technical centres which will examine the equipment and gear, the reconstruction and aesthetic improvement of factories, security measures against accidents and fire, technical training, recovery of waste products, synthetic resins and binding material, furniture, the poplar, fibres, packing cases and standardized carpentry.

At the same time this important organization will set up a specialized library which will form the basis of the documentation service for manufacturers, and a central laboratory whose immediate work, on the one hand, will be to study the chemical, physical, mechanical and micrographic properties of wood and, on the other, to analyze the raw or semi-finished material or material to be utilized by the associates of the centre.

Funds are assured by a subsidy from the Government and the public authorities and by an annual contribution to be paid by all the enterprises concerned, in proportion to their size. The monies obtained by granting patents will also assist in meeting expenses.

The mere indication of this program shows that the task before this new body is both considerable and highly promising. All collaborators aware of the importance of the work are most anxious to take the fullest possible advantage of past experience while at the same time concentrating efforts on entirely new features.

In pursuing these objectives of universal significance, included in the program of FAO, the centre,

encouraged by the public authorities and industrial circles, is called upon to render important service to science and national economy. Its labours will result in the development of the timber processing industry which, under the stimulus of the centre, will enter into a new epoch where it will be under the control and guidance of science.

* *

In 1947 the Austrian Federal authorities decided to stimulate the supplying of wood to the paper-mills by assigning one ton of coal for every 4 cubic metres of timber delivered. This measure led to the appearance of numerous amateur woodmen, and in December the total quantity of timber felled for the paper industry attained 800,000 cubic metres, that is, half the requirements of the Austrian industry. The coal acquired with the paper exported was allotted in the proportion of 35 per cent. to industry and 65 per cent. to the lumberers.

* *

The Polish State timber output amounts to 40 per cent of the total production. In 1948 stress will be laid upon the production of furniture, wooden houses and boxes. The private timber industry employs 13,000 workers. 75 per cent of the production will be taken over by state enterprises. The Polish timber production is able to cover all local needs and that is why considerable quantities of sawn woods and furniture and several hundred tons of turpentine will be exported.

* *

The Polish forest area amounts to a total of 6,706,983 hectares which includes 6 million hectares owned by the State; 88 per cent of the woods consist of pine. An output of 10 million cubic meters was planned for the 1947-48 financial year. During the first quarter of the current financial year only 56 per cent. of the production planned could be achieved on account of the mild and rainy winter.

* *

The direction of Rumanian timber exports has been taken over by a State enterprise 'Export-lamn'. There is much foreign interest in Rumanian softwood and hardwood products. Export to the Western countries including Great Britain has also commenced.

* *

Reforestation in the U.S.S.R. in 1947 affected an area of 215,000 hectares - 133,663 hectares had already been planted in the spring - mainly devas-

tated areas in the Ukraine and Bielorussia, as well as regions in the steppes (Altai, Kazakhstan, Uzbekistan). In order to coordinate the work of reforestation the U.S.S.R. Ministry of Forest Economy was set up 4 April 1947, it will control all forest, belonging to the State, or townships except those which have been granted permanently to the kolkhozy. Ministries of Forest Economy have also been set up on a suitable scale in the various Soviet republics.

(Extract from the 'Cahiers de l'Economie soviétique', No. 9, July-September 1947).

VITICULTURE



Bulgarian wine production in 1947

The production of Bulgarian wine and brandy in 1947 barely reached 20% of the average and the balance left over from previous crops is insignificant. According to the data of the Alcohol Monopoly Department, the wine production in 1947 amounted to 42 million litres, and the balance left over in the same year from previous crops to 11 million litres, or a total of 53 million litres. In a normal year production reaches 220 million litres and the average balance from former crops was between 60 and 70 million litres.

Alcohol production is equally low, 50% less than in a normal year, this will mean that 5,000 metric tons of molasses will have to be imported from Yugoslavia.

Wine yield in France and Algeria

The official statistics for the 1947 vintage in France give 39,044,000 hectolitres as against 31,562,321 hl. in 1946. Despite this marked increase, the yield is still definitely below the prewar average.

The stocks held by the wine-growers amount to 3,424,000 hl. and trade stocks to 6,440,000 hl. Wine stocks in France, therefore, total 48,908,000 hl.

On the other hand, the Algerien 1947 vintage only attained 8,302,000 hl. compared with the 9,099,000 hl. in 1946, in other words, not even half the prewar

average (17,000,000 hl.). Wine-growers' and trade stocks of Algerian wine total 10,218,000 hectolitres. This low yield is largely due to the extreme heat and scorching winds of last summer.

Developments in the production of name-brand wines in France

An article on wine-growing in France and the world wine and spirits market in *La Journée vinicole* of February 1948 contained the following remarks: "Controlled name-brand wines present a problem of immediate interest to the reconstruction of French wine-growing".

"Legislation enacted in their favour during and after the war has led to the increase of these wines in comparison to the total yield as may be seen by the following table taken from the review of the Ministry of Agriculture".

Years	Name-brand wines	Ordinary wines	Total	% of name-brand wines to total
	Hectolitres	Hectolitres	Hectolitres	
1938	2,727,315	55,180,682	57,907,997	4.71
1939	3,738,001	64,585,783	68,323,784	5.41
1940	3,012,034	41,865,546	44,877,581	6.71
1941	4,600,134	38,223,331	42,823,465	10.74
1942	4,849,752	28,912,012	33,761,764	15.46
1943	5,622,463	32,211,984	37,834,447	14.86
1944	5,719,926	35,711,524	41,431,450	13.80
1945	2,933,894	22,105,694	25,039,588	11.69
1946	5,406,927	26,102,388	31,509,315	17.95

"There is a risk that the abuse of brand names will have an adverse effect on the export trade. It also appears that the list of brand names should be revised as some wines which are highly thought of abroad (*e. g.*, Corbières) are not included".

German wines

Arrangements have been authorized for the purchase of 150,000 litres of wine f. o. b. from the French-occupied zone of Germany. Imports are expected to begin in the late spring and will consist chiefly of still table wines which are not subject to agreed maximum prices; less than 10 per cent. will consist of sparkling wines for which agreed retail prices are to be fixed. Since the total quantity for import is considerably less than prewar average, only prewar importers will be issued with import licences.

Grape preservation

After experiments carried out over a period of five years at the Wine-growing and Oenology Experiment Station in Conegliano, Italy, Mr. Venezia reports that bentonite has proved excellent for the preservation of grapes as long as 5 months after picking. In order to obtain a still longer storage period, tests were made with specially constructed casks, which have given very good results since they supplement the action of the bentonite. If this system can be developed on a commercial scale, as is being contemplated, the market could be supplied with a nutritive product, meeting the present day requirements of the human organism, in periods when fewer fruits are available. *

* VENEZIA, Mario. Sulla conservazione dell'uva da tavola mezzi pratici. « *Annali della Sperimentazione agraria* », Roma 1947, Vol. I, No. 2.

PLANT DISEASES AND INSECT PESTS



Enemies of the orchard

Since 1944 the plum crop in Italy has greatly decreased on account of the premature fall of the fruit shortly after setting. The losses thus caused in some places reached 50 to 90 and 95% of the crop. A number of discouraged growers have neglected their plum trees and have even begun to fell the trees.

This serious damage to the orchards is caused by two small insects, *Hoplocampa minuta*, which is black, and *Hoplocampa flava* which is yellowish and about half a centimetre in length. The young larva of these flies is whitish, the head and the last rings of the abdomen are chestnut brown, it has 3 pairs of legs attached to the thorax and 7 false pairs of legs attached to the abdomen, this gives it the appearance of a caterpillar. The adult larva is pale yellow and has no brown markings, it has a disagreeable odour similar to that of the flea, this odour it gives to the plum it attacks. The adult larvae appear when the plum trees reach the budding stage, at the pre-blossoming stage and at blossom time. The young flies feed on the pollen and

after a few days they lay their eggs in hollows that they have dug in the exterior walls of the green calyces. 7 to 10 days after the eggs have been laid the young larvae hatch and bore their way into the ovary, there they feed on the contents of the ovary and the young fruit thus attacked starts to wrinkle and dry up and then falls.

Professor G. Russo, head of the Institute of Entomology of the University of Pisa, gives the following advice for combatting the adult insect and the larvae: the branches, not the trunk or the large limbs, should be sprayed with an insecticide (Gerasol, DDT, Cytox, etc., with the respective strengths of 1% for the first and 0.25% for the other two) as soon as the slight swelling and splits in the calyces, produced by the laying of the eggs, is noticed, this phenomenon coincides with the appearance of the small *Hoplocampa* flies. The insecticide acts both by absorption and by contact. The flies alight on the moist insecticide and are paralyzed and die before they have laid their eggs. The action of the insecticide lasts several weeks.

If the treatment has to be applied in blossom time spraying must be done with an infusion of quassia wood which is not harmful to useful insects which otherwise might be destroyed by insecticide when they were feeding on the pollen. If quassia wood is unobtainable it is better not to apply the treatment.

Two treatments with DDT can be applied against the larvae: at the moment the fruit sets and the larvae hatch. The treatment should be repeated after ten days so that larvae hatched later may be attacked, when there is heavy rain the treatment will have to be repeated several times.

Similar damage may be done to pear trees by *Hoplocampa brevis* and to apple trees by *Hoplocampa testudinea*. These flies are slightly larger but their habits are similar and the same system of control can be used as in the case of plum trees.

Factors affecting the loss of yield of sugar beet caused by yellow beet virus

According to the opinion of R. HULL, Midland Agricultural College, Sutton Bonington and MARION WATSON, Rothamsted Experiment Station, Harpenden (1), the effect of yellow beet virus on the yield of sugar beet was tested in the presence and absence of various fertilizers and farmyard manure. In general the manurial treatments increased the root and sugar yields of both infected and healthy plants, but the losses caused by infection increased proportionally as the mean yields increased. When the effects of nitrogen, farmyard manure and salt

(1) Published by 'The Journal of Agricultural Science' Vol. 37, Part 4, Cambridge University Press.

on mean yield were large, the losses caused by infection increased more than proportionally.

The fertilizers had little effect in varying the symptoms of the disease. There was some indication that the red colour associated with some varieties of sugar beet was intensified by deficiency of phosphate and potash.

The effect of fertilizers on the rate of spread of infection was variable, and again appeared to depend largely upon the magnitude of the fertilizer effects on mean yield. Nitrogen, phosphate and potash occasionally had positive effects, and salt had a fairly consistent negative effect. None of the effects appeared to be of any economic importance.

Commercial varieties of sugar beet, and also some breeders' lines and single plant progenies were tested for susceptibility and tolerance to the virus, but none was found to be materially better or worse than the others. No material showed any promise of being suitable as a basis for breeding resistant or tolerant varieties.

Swiss forests endangered by the bark beetle

Since 1942, foci of bark beetles have established themselves in Southern Germany, particularly in the Black Forest, as a result of insufficient fellings in the forests of evergreens damaged by a xylophagous insect, the bark beetle or *Ips typographicus* L. It was found necessary to fell several hundreds of hectares of forest in Southern Germany during 1947. The bark beetle spread to Switzerland, where the immediate felling of infested evergreens resulted in considerably limiting the progress of this scourge. In 1947 the enforced felling of trees infested with the bark beetle amounted to 150,000 cubic meters, (total area of Swiss forests is 975,000 hectares). The most infested forests are those in the areas where the 1947 drought was most severely felt, that is to say in the Jura and the Pre-Alps as well as on the Swiss plateau, in the Canton of Grisons and in the central part of Ticino. The Federal Forestry Inspector therefore convened all the Swiss cantonal Foresters in Berne, in January last, to decide on the necessary measures to be taken against an invasion of the bark beetle. With this aim, Professor Schneider-Orelli, of the Institute of Entomology of the Federal Polytechnic School at Zurich has drawn up a series of 'practical directives for 1948'.

Mite control in bee-keeping

Bees sometimes manifest an inability to fly, and crawl laboriously about the hive. This condition may be due to an intestinal disease by which the intestine becomes distended and presses on the trachea. This disorder can easily be cured by me-

dicinal treatment. This inability to fly may have a more serious cause, namely, mites, small insects which penetrate into the trachea or lungs of the bees, parasitizing them. In this case the whole hive is endangered as the bees soon perish. Frow's mixture is a known means of checking these parasites, but another simpler preparation, containing sulphur and carbon disulphide, can be used anywhere and in any season. The hive is fumigated, preferably in the evening or on a rainy and cool day. This operation is repeated three times a week for 3 consecutive weeks, care being taken not to exceed the dose.

Another method is to place a small unstoppered vial of methyl salicylate in the hive for a few weeks. The bees, however, have to be watched as they detest the odour of this liquid and will soon cork the vial with wax unless prevented. In England, methyl salicylate is mixed with equal parts of nitrobenzene.

HORTICULTURE



International Meeting on Horticulture in Rome

FAO convened an International Meeting of Experts on Horticulture in Rome on March 17-19, 1948. All European member countries of FAO were invited, and the powers occupying Germany asked to authorize their representatives to discuss their respective problems with regard to Germany as well.

The following countries sent representatives: Austria, Czechoslovakia, Denmark, Finland, France, Hungary, Italy, Luxembourg, the Netherlands, Poland, Switzerland, Turkey, the United Kingdom and Yugoslavia. A representative of the occupying powers of the Bizone also attended the meetings. Observers were present from the United States of America, the Union of South Africa; and also from the Inland Transportation Committee of the Economic Commission for Europe (ECE) and from the International Chamber of Commerce.

The recommendations of the Meeting, whose text follows below, have been sent to the Director General of FAO for submission to the next session of the Council of FAO (World Food Council) in April 1948.

The Conference of Experts on horticulture:

I. resolved to request FAO to set up a body to study the problems of production and consumption of horticultural crops in Europe. The study should cover both the immediate problems and those of a long term character, and where necessary should take account of the interests of extra-European countries.

II. The following points should receive specific attention:

1. surplus production of fruit and vegetable in certain countries.

2. the fact that countries not accustomed to exporting before the war now find themselves in a position to do so.

3. the reduction or loss of the pre-war customary markets, in particular the German market,

4. expansion of existing markets and creation of new ones.

III. To assist in solving the above problems it will be necessary to study:

1. the need for international collection and distribution of information on crop prospects, availabilities and consumption.

2. the need for complete information on transport services and requirements and for giving full support to the Inland Transport Committee of ECE.

3. all forms of processing and the need for specialized production for supplying certain of these industries; the increased use of the products and their value in improving diet. The development of preservation in private homes should also be studied.

4. the need for increasing consumption and improving the diet in all countries including those with exportable supplies by means of better education and propaganda in nutrition.

5. the possibility of reducing selling prices by improved technique in growing, disease control, packaging, distribution and standardization of packages, weights and quality.

6. the effect of trade policies, quotas, and international agreements and their relation to economic rehabilitation.

IV. The composition of the Study Group should be left to FAO in consultation with the National Committees. It is considered essential and it is therefore recommended that a permanent secretariat be appointed.

General directions for vegetable growing in 1948 in Switzerland

According to the Swiss Peasant Union the area on which vegetables are to be grown in Switzerland must be proportionate to future consumption. More than the 12,000 hectares which were to have been allotted to vegetable growing,

out of the cultivated area of 300,000 ha. planned for the postwar period, are still being planted. Greater areas have, in fact, been used for vegetable growing in recent years.

The fact that, in 1947, there was no great difficulty in selling vegetables is due largely to the decrease in yield caused by the prolonged drought. Had the yield not been affected by exceptional weather conditions it would have been difficult to dispose of a large part of the market-garden produce. For the coming year, therefore, an attempt should be made to obviate such a contingency by a suitable reduction of the cultivated area.

As a result of discussions held by the committee of the Swiss Market-Gardeners' Union, by representatives of the Swiss Vegetable Union and by the appropriate Federal authorities, the following directions have been worked out for vegetable growing in 1948:

1. — *Early vegetables.* It is likely that marketing conditions will be greatly influenced by the state of the continental market. An effort should be made to make the best possible use of technical equipment. It appears, however, that extreme caution should be taken concerning the use of hotbeds for large scale growing of lettuce and cauliflower.

2. — *Summer and autumn vegetables.* It becomes less and less certain that any surplus can be disposed of, the area used for the growing of summer and autumn vegetables will have to be considerably reduced and it will be in the interest of every grower to give way completely to this necessity. The following reductions should be made, compared to the areas cultivated in 1947:

20% for summer spinach, cos lettuce, beans, cabbage lettuce;

20 to 25% for tomatoes;

30% for cauliflowers;

30 to 40% for headed cabbage for summer and autumn consumption;

for carrots to be gathered in summer and at the beginning of the autumn;

40% for kohlrabi, Italian squash and Swiss chard.

A reduction of the area used for peas and sugar-peas is considered less urgent.

3. — *Vegetables for storing.* Reductions of the cultivated areas will be according to the following plan:

15% for carrots (keepers);

20% for Milan cabbage (large-headed variety);

for red cabbage (keepers);

25% for leeks;

30% for headed cabbage, celeriac, table beets (all keepers).

In spite of the drought the table beet crop was heavier in 1947 than in the previous year. It is extremely necessary that the cultivation area of this vegetable be limited. The demand for field

carrots, yellow and red, for human consumption, becomes less and less. From now on yellow carrots will only be grown as feedingstuff. Onions will only be planted on a strict contract basis. The sale of salsify will depend on the quality (roots of a sufficient size) so they will only be grown on deep soil.

4. — *Vegetables for preserving.* Unlike the situation concerning other vegetables the cultivation of vegetables for use in preserving could be reasonably increased in 1948 because the needs of the preserving factories are still large.

5. — *Cabbage for sauerkraut.* These should not be grown except on the basis of contracts with firms which make sauerkraut. The use of sauerkraut obviously cannot be increased beyond a certain limit.

6. — *Winter vegetables.* Winter spinach, Brussels sprouts and corn salad should only be grown in quantities proportionate to probable marketing conditions.

7. — *Crops to replace vegetables.* It is advised that bread grains and feedingstuffs be raised instead of vegetables on farms of a certain size. In some regions there are good prospects for small and medium farms if these change over from vegetable to berry growing. Jam factories are seeking to make contracts with growers for the supply of raspberries, blackberries and certain varieties of strawberries. Those farmers interested should make enquiries, preferably at the nearest factory.

A contract for growing and supplying ensures a certain and easy market to the grower for his produce. As a result, only those vegetables will be raised whose disposal is guaranteed by such contracts.

Canned fruit

Extract from "Enquiry into Production, Commerce of Fruit - Vegetables in Europe" Submitted to the Meeting of Experts on Horticulture, in March 1948, in Rome.

Canned fruit production has increased in many European countries since pre-war years but international trade has declined.

In **France** the production of canned fruit and fruit pulps increased from 15,000 tons in the average for the years 1934-38 to 60,000 tons and 64,000 tons in 1946 and 1947. Production of jams increased from 25,000 tons to 70,000 tons in each of the post-war years. About 70 % of the fruit pulps were utilized in the jam industry. The quantity of fresh fruit used for canning was 72,000 tons in 1946 and 78,000 tons in 1947. The production of fruit juices, mainly grape juice, increased from 37,000 hl. in the pre-war years to 309,000 hl. for 1945-46 and 200,000 hl. 1946-47. The production

of cider, however, declined from 23.4 million hectolitres in 1934-38 to 13.4 million in 1945-46. The production of fruit alcohols declined from 572,000 hl. in 1934-39 to about 133,000 hl. in each of the seasons 1945-46 and 1946-47. These declines are probably only the consequence of the bad apple crops these years.

The **Dutch** production of processed fresh fruit rose from a yearly average of 43,000 tons in the period 1937-39 to about 54,000 tons in each of the years 1946 and 1947.

A similar expansion does not seem to have taken place in **Belgium**. The amount of fresh fruit used for canning before the war varied between 25,000 and 33,000 tons. In 1946 the processed quantity was only 19,400 tons but in 1947 36,500 tons. The quantity used for production of juice was in 1946 5,900 tons and in 1947 3,500 tons.

In **Switzerland** fruit processing has been widely developed. Production of fruit alcohol has been important in the early 30's, but the production of non-alcoholic cider is favoured and has increased

1932	..	177,000 hl.	1946	...	461,537 hl.
1939	..	285,000 hl.	1947	...	403,031 hl.

Production of fruit alcohol is now mainly limited to years when the crop is exceptionally abundant.

The total amount of fruit preserved fluctuates very much with the crops:

1936	..	46,900 tons	1945	...	21,300 tons
1938	..	32,200 tons	1946	...	50,070 tons

Compared with the country's total fruit production canning of fruit has not been of great importance in **Italy** and the industry is mainly based on exports. In 1938 the production amounted to 42,000 tons, but in 1947 it declined to 20,000 tons. Production of juice of citrus fruit, increased, however, from 15,000 tons in 1938 to 20,000 tons in 1947.

Export figures for **Palestine** in 1946-47 indicate that the canning industry has been expanded since the war.

As far as **Germany** is concerned available information indicates considerable expansion during the war. It is estimated that the quantity of fruit bottled and canned both by factories and private individuals has increased by 400 %, while that of marmelade and jam has risen about 300 % during the war.

In the U. K. further expansion of the canning production has received particular attention in the post-war discussions about the future of British horticulture.

A limiting factor in the canning industry is the shortage of tin plate and coal and, to some extent, lack of the necessary machinery. There seems to be an improvement in the supplies of raw materials and machinery and further expansion will, therefore, mainly be dependent on the export facilities.

An International Congress of the Foreign Trade in Italian Flowers will be held in San Remo from 6 to 11 May 1948; an Italian National Floriculture Congress will be held at the same time.

..

Great stress will be laid on the increase of wine and apple growing in **Rumania**. The number of nurseries will be raised from 93 to 143. The new nurseries will be established in fruit growing districts.

RURAL WELFARE



An enquiry on rural housing in France

(by R. Colson, Director of C. N. E. R.)

Housing in the country is extremely defective both as regards hygiene and comfort. Consequently, rural housing was one of the first problems to be tackled by the National Centre for Rural Investigations (C. N. E. R. - Centre national d'Etudes Rurales).

This investigation was undertaken last year in some departments in the west, and is being continued this year in other regions. It is still too early to draw conclusions, but the preliminary data obtained augur well of the results of the method employed, and clearly indicate the undeniable importance of these investigations.

The following figures were derived from 157 investigations carried out in the Côte-du-Nord Department, where housing conditions may be considered as among the most unfavourable of all the French departments.

Better than a long description, these figures give a clear idea of the want of comfort in these houses and the innumerable difficulties encountered by the occupiers.

Enquiry on rural housing in the Côte-du-Nord Department

(Abstract of results of 157 investigations)

DATE when houses now inhabited were built:

before 1789	19.60 %
from 1789 to 1870	40.14 %
" 1870 » 1914	30.30 %
" 1914 to present times	10.87 %

PROPRIETORS	43.13 %
TENANTS	56.98 %
EASY ACCESS	83.6 %
DIFFICULT ACCESS	17.4 %

ENVIRONMENT:

Garden	18.54 %
Yard dirty	23.2 %
Farmyard clean	23.6 %
Fields, lane, road, etc.	32 %

FLOOR OF LIVING-ROOM:

Tiles	4.25 %	} good condition 61 % poor condition 39 %
Cement	38.15 %	
Wooden flooring	5.6 %	
Beaten earth (and mixed with lime)	52 %	

FLOOR OF OTHER ROOMS:

Tiles	3.75 %	} good condition 72 % poor condition 28 %
Cement	17.5 %	
Wooden flooring	33 %	
Beaten earth and mixed with lime)	45.75 %	

WALLS:

Good condition	69 %	Defective	31 %
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ROOFING:

Slate.	96	%	} Condition	
Tiled	3.4	%		} Good82.75 %
Thatched.	0.6	%		

GUTTERS:

On all sides:	22.35	%	} Condition			
Partial.	16.2	%		Good	50	%
None	61.45	%		Defective	50	%

INTERIOR COVERING:

Tiles, cement					
or wood . .	8.67	%	} Condition		
Painted . . .	13.65	%			
Whitewashed .	73.1	%		Good69.9 %
No facing . .	4.58	%		Poor30.1 %

CEILING:

Exposed roof, boards badly fitted	11.85	%	} Condition		
Plastered	15.75	%			
Bare beams	72.4	%			
			Good	70.3	%
			Poor	29.1	%

INTERIOR ARRANGEMENT:

Isolated rooms opening on to vestibule	5.9 %
on to corridor	16.2 %
intercommunicating rooms	55.5 %
one all-purpose room	22.4 %

HOUSES HAVING BESIDES A LIVING-ROOM :

Kitchen . . .	32.3	%	Dressing-room .	5.6	%
Office	2.5	%	Drawing-room	13.05	%

PERCENTAGE OWNER OCCUPIERS :

0	1	2	3	4	5	6	rooms
27.68	33	15.6	12.5	8.1	2.5	0.62	%

VENTILATION AND LIGHTING :

Ratio of window surface to room area	Normal . .	12.2	%
	Insufficient .	87.8	%

W. C.

inside and out-side the house	56.88	%	None	43.12	%
			with	34.2	%
			condition		

WATER SUPPLY :

Running water	8.73	%
Pumped . . .	19.98	%
Well	53.19	%
Lowest water level 50 metres deep. .	18.1	%
No drainage system for waste waters	68.14	%

ELECTRIFICATION :

Power . . .	33.5	%
Lighting . .	28.6	%
No electricity.	37.9	%

SANITARY FITTINGS :

Bath	3.72	%	Shower-bath .	2.5	%
Refrigerator .	0.62	%	Wash-hand basin . . .	8.7	%
Vacuum cleaner	0.62	%	Dish-washer .	18.7	%

KITCHEN FITTINGS :

Fireplace . . .	23.1	%
Cooking stove	62	%
Gas, electricity	14.9	%

HEATING :

Fireplace . . .	57.2	%
Furnace or stove . . .	34.74	%
Modern system	8.06	%

FURNISHING :

Kitchen with bare necessities	35.5	%
Sewing-machine	59.5	%
Comfortable furniture (arm-chair, etc.)	12.5	%
Radio	42.2	%

NUMBER OF OCCUPIERS PER ROOM :

1	17.5	%
2	35	%
3	24.5	%
4 and over .	23	%
General average	2.77	per room

PERSONS SLEEPING IN THE LIVING-ROOM :

9 :	8 :	7 :	6 :	5 :	4 :	3 :	2 :
1.98	0.66	3.28	4.61	5.57	5.82	13.14	27.55
1 :	0 :						
11.16	24.99	%					

PROMISCUITY :

Boys and girls over 10 years old sleeping in the same room	15.31	%
Parents and children over 10 years old in the same room.	42.60	%
Normal	42.09	%

Agricultural labour in Belgium

The following is an excerpt from the Chapter on Belgium, derived from a study of the Maintenance fund for the unemployed in Belgium, in the study on "Employment and unemployment" published in the international Labour Review :

"There is a grave lack of agricultural labour, particularly of permanent labour, and this creates a serious problem for the future. Many farmers have had to ask for the temporary help of German prisoners of war in order to finish seasonal work. In May 1947 there were 3,200 prisoners employed in Belgian agriculture. For fruit-picking, on the other hand, the unemployed available locally were taken on as far as possible, but it was not possible to engage pickers from other localities where there were job-seekers listed as completely unemployed on account of the expense of transportation and the lack of experience of these persons. The labour shortage induced farmers to offer very high wages. On this account many workers (miners, metal-workers, etc.) temporarily left their usual work in favour of farming.

The lack of labour in forests was accentuated by the fact that the employers will not take on local labour ; some forest managers asked for permission to employ German prisoners of war. The shortage was also noted in skilled labour : carpenters, builders, floor-layers and upholsterers.

The state of affairs in the food industry is fairly stable. In the tobacco industry there is permanent unemployment among the cigar-makers in the small factories on account of the very strong competition of the Netherlands as well as that of other, more modern Belgian factories".

The effect of three years of the new social agricultural policy in Hungary (1945-47)

As Mr. József Nádujfalvy points out in the *Magyar Statisztikai Szemle* (Hungarian Statistics Review), of Sept.-Oct. 1947, Hungarian agriculture has been greatly affected by events of the past three years.

The smallholder class which formerly numbered 250,000 farmers farming their own land was greatly

increased by the agrarian reform that was begun in 1945 and whereby land was distributed to 370,000 workers and 80,000 members of their families. The number of farm labourers was thus reduced to about 300,000. A back-to-the-soil movement and the fact that neither military service nor industry, in particular, attracted farm labour to the towns, as had formerly been the case, account for there being 400-450,000 farm labourers available.

In 1930 it was estimated that farming alone required 360 million days of work whereas the farm population could supply 471 million days: therefore about 24 % of farm labour could not be used. Recent estimates, which have admittedly been made with other slightly different criteria, evaluate these needs at 338 million days of work whereas the farm population could supply 441 million days. There still remains, therefore, 23.3% of farm labour that cannot be used and a serious employment problem is still present in spite of agrarian reform.

Influenced by ideas of social justice, farm wages have been increased so much that, considered in terms of buying power, they are now equivalent to 110-140% of what they were before the war. On the other hand, farm incomes have decreased by 59% compared with 1938, as a result of great losses sustained on account of the war, and wages naturally reflect these losses since farmers, on account of the difficult financial situation, are loath to hire labourers unless they are absolutely indispensable.

There are also changes to be noted in the labour laws: all those which infringed on the rights of workmen or allowed for differential treatment within their ranks were repealed. Labour is no longer the province of administrative authorities, it has passed into the jurisdiction of the courts. The legal situation of flower gardeners, especially, is an innovation so far as labour laws are concerned.

Jobs are now found for farm labourers exclusively and obligatorily through special offices which represent the interests of labour; all job seekers and all requests for manual labour must go through these offices. This involves some inconvenience, mainly for prospective employers, but a solution is now being sought by framing regulations for problems which are common both to employers and employees.

All farm labourers must take out social security insurance which covers illness, accident, old age, disability and the loss of husband, wife or parents. The premiums which amount to about 10% of wages must be paid for by the employer in their entirety. The law foresaw that by the end of 1947, any changes that might appear necessary in the working of the insurance policies, after seven months' experience, could then be made; the administration of these insurances is entrusted to the General Institute for Social Security Insurance.

The organization of farm labourers' interests in an autonomous federation of landworkers and smallholders (FEKOSZ) is an important innovation

and the most characteristic of the altered system of handling farm labour. Not only does the federation find jobs for labourers but it also plays an important part in raising wages and has a say in the local administration of social security insurance.

NEWS FROM AFRICA



State of the crops in Algeria February 1948

(from the 'North African Review').

By the beginning of December the sowing of winter cereals was practically finished on European farms. On Moslem ones, on the other hand, sowing was continued in many areas up until January. It appears that the area sown will be distinctly greater than last year. The progress of growth is satisfactory in spite of the droughts in October and November.

The area under lentils has apparently increased in the Constantine department. This expansion is due to the good price that lentils fetched last season. Seed potatoes have been imported in large quantities (nearly 25,000,000 kg.). Though some lots did not find a buyer it is probable that autumn and winter planting will be more extensive than before the war and even than in 1946-47. The essential problem is to find foreign market outlets for the new potatoes.

○ The citrus fruit crop in Algeria is estimated at 120 million kg. This figure is high compared with the previous harvest and is due to new orchards coming into bearing.

The export quota, decided on by the Union of Syndicates, amounts to 80 million kg. of which 60 million kg., to be sent to France, do not require a licence.

○ The 1947-48 fig production in Algeria is estimated at 85 million kg., fresh fruit weight.

Olive production is estimated at about 150 million kg.

The recently published returns for 1947 indicate that the production and sale of phosphates in Morocco are steadily increasing. Overall production amounted to 2,741,000 tons in 1947 compared with 2,380,000 in 1946 and 1,477,000 tons in 1938.

* * *

The area sown with wheat in Tunisia is nearly equal to the prewar area. It amounts to 600,000 hectares instead of 700,000. Only 250 million kg. have been harvested on account of the lack of rain instead of the prewar average of 365 million kg.

Meeting of Colonial Experts

(Sent by the Belgian National FAO Committee).

The Colonial Advisory Subcommittee, attached to the Belgian National FAO Committee, under the auspices of the Colonial Ministry, organized a Meeting of Colonial Experts which was held in Brussels on 11, 12 and 13 December 1947.

Delegations from England, France, Portugal, Union of South Africa and Belgium together with the following experts participated:

Messrs ROBERTSON, W. A., Forestry Adviser, Colonial Office,
GUILLAUME, Director of Agriculture, Overseas France Ministry,
CHRISTIE, J. K., Chargé d'Affaires, South African Legation,
BRICHET, Honorary Director of Agriculture, Belgian Congo.

Following the opening address of Mr. P. WIGNY, Colonial Minister, and a speech by Mr. Arthur WAUTERS, Chairman of the Belgian FAO National Committee, Mr. VAN DEN ABEELE, Chairman of the Advisory Board of Agriculture attached to the Belgian National Committee, was nominated General Chairman of the Conference.

Three Committees were set up, one for forestry questions, the second to examine phytosanitary problems and the third, the conservation of African soils.

I. — *The Forestry Committee*, under the chairmanship of Mr ROBERTSON (England), had three items on the agenda, namely:

- the standardization of trade forestry terms,
- the measures to be taken to cover the present acute shortage of timber in Europe,
- the 1950 world forest census program included in FAO objectives.

The need for standardizing the names of commercial species has long been evident, as in this way any confusion arising through presenting the same species on the market under different names is avoided.

The Committee made a start by drawing up a fairly lengthy list of commercial species, giving for each the scientific name and the commercial term which should be used.

Similar data will subsequently be prepared by the specialists of the three countries concerned and assembled by a small Committee which will draft a final list for universal application in the timber trade.

The Committee in discussing the means of covering the present timber shortage in Europe did not keep strictly to the agenda, and in drafting the measures to be taken considered the possibilities of obtaining supplies of colonial timber.

Many resolutions were taken and indicate the main steps required to obtain results.

The first step is to commercialize new species on a wide scale. First, however, it will be necessary to solve many scientific, industrial and commercial problems in order to augment as much as possible the 'economic potential' of the tropical forest. Consequently, studies should be carried out in each country on the species available in quantities which can be put on the world timber market.

The standardization of methods for testing the physical and mechanical properties of species is evidently very important. This question, which has already been treated, should be examined in fuller detail by the International Union of Forest Research Stations in order to standardize test methods on an international level. Commercial dealings in colonial timber would be greatly facilitated if basic tests for each species and for each use could be established. Save in the case of some widely commercialized species for which there is a definite market, the elaboration of precise test methods to serve as a basis in the administrative supervision of exports and sales, is most arduous at the moment owing to the technical difficulties and want of qualified personnel. Trade experts should take the initiative in defining the qualities which will satisfy both the producer and the user, and which can be adopted by the administrative authorities to fix regulations.

At a later stage, collaboration between different countries producing the same species could be attained.

Forestry questions are an eminently important factor in the solution of the problem of tropical soil conservation. This point should be stressed in the program of the coming Conference in Léopoldville in order that the countries invited may include forest experts in their respective delegations.

In regard to the inventory of tropical forests where immense areas are still unexploited, the biological and technical conditions of tropical regions being of a specific nature, a questionnaire covering the special character of this vast operation was drafted. On the other hand, the Committee would

like FAO to make use of this questionnaire in carrying out this census and considers that full technical explanations should accompany the replies given by the different countries. This initiative will only be successful if the participating countries give close attention to the matter and put forward suggestions on the questionnaire with a view to deciding on the final draft, within the possibilities of the services concerned. It would be desirable if the Division of Forestry and Forest Products of FAO extended this enquiry to all countries of the inter-tropical zone.

II. — *The Phytosanitary Committee*, with Mr. MAYNE (Belgium) in the chair, examined the different problems concerning crop protection and drew up an extensive program aiming at promoting phytosanitary activity in Africa and which, judging from its wide range, is an effective advance in the development of colonial agriculture.

Among the proposed objectives, mention may be made of the setting up of an African phytosanitary agreement, the establishment of an information centre and a permanent coordination committee — whose work is to report the appearance and spread of plant pests — the organization of quarantine stations, supervision of imported plant material, phytosanitary regulations governing imports brought by air, effective conservation of stored goods.

Since plant protection problems have to be solved on a world level, FAO was sounded in regard to a closer examination of this question and to the facilities to be granted to quarantine organizations, in order to promote the exchange of plant material.

III. — The most serious problem which holds the attention of all countries concerned is certainly the *conservation of African soil*. The primary importance of this problem was not overlooked by the third Committee which, under the chairmanship of Mr. GUILLAUME (France) unanimously agreed that the final objective of all scientific research workers is to save the fertility of the soil which is threatened through agricultural exploitation, and to check soil deterioration. This Committee, aware of the complex nature of this study, rightly limited its efforts to outlining the program of work of a coming Conference which will be held in Léopoldville next September, without, however, specifying details, the main object being to inform the interested experts of the subjects which they could utilize in their reports. In this program, the wishes expressed by different sections of 'La Semaine agricole de Yangambi' were combined into a whole and ranged under soil conservation.

During the closing plenary meeting, the resolutions of the three working groups were coordinated and adopted, and it is evident that the advantageous exchange of views between the delegates of the countries taking part in the conference was

prompted by a comprehensive spirit of collaboration which augurs well for the future.

Shortly, at the coming Léopoldville Conference, the different countries will centre their efforts on these topical problems with the attention they require from competent experts, in order to obtain a rapid solution and enable an unprogressive continent to profit by the resources of present day science.

By these preliminary steps, of universal importance, the first Conference of Yangambi and that of the Colonial Experts have set an excellent example of international solidarity which will be amply recompensed by the assistance which the African Continent, renaissant and organized, will in its turn bring to the economic change in the world.

Belgian Congo increases coffee production

The 1947-48 coffee crop in the **Belgian Congo** and **Ruanda Urundi** is estimated at 550,000 bags of which about 330,000 bags will be Robusta coffee and 217,000 bags Arabica. This would be the largest crop in the history of the Congo. It compares with the combined 1946-47 production for the two areas of 521,000 bags and the prewar (1935-39) average of 320,000 bags. About 25,000 bags are consumed locally, and the remainder of the crop is exported. Most of the coffee is harvested from November through April.

Efforts are being made also to improve the quality of Congo coffees, especially the Arabica. Classification, grading, and packing are under government supervision. All Arabica coffee for export must carry a certificate of type and quality. (Coffee, January 1948).

FAO ACTIVITIES



FAO Regional Conference for the Near East in Cairo

2-14 February 1948

On 2 February, 1948, FAO convened a Regional Conference in Cairo for the Near East which was attended by five member-countries of the Region (Egypt, Ethiopia, Iraq, Lebanon, Syria), 5 observer-countries, Iran, Saudi Arabia, Turkey, United

Kingdom, United States of America) and three intergovernmental organizations (UNESCO, ILO and Interim Commission of the World Health Organization). The Conference was inaugurated by Salem Naguib Pasha, Representative of the King of Egypt, in the presence of Sir John Boyd Orr, Director General of FAO.

In his opening speech, Sir John said that within the next 25 years, the food production of the earth must be doubled to provide for the rapidly growing population. In his opinion, this work could fittingly begin in the Near East Region, where mankind's first efforts at agriculture made modern civilization possible. If this region, — which has land, sunshine and water — could be developed by modern technology, it could again become a granary of the world, as of old, supporting a much greater population on a higher standard of living and still providing food for export. The emphasis, however, must be laid on such concrete measures as can be put into effect in 1948 and show positive results by 1949, in order to alleviate the present world food shortage.

After electing as Chairman Abd el Ghaffar Pasha, Egyptian Minister of Agriculture, and Head of the Egyptian Delegation, the Conference split into five committees (Irrigation and Drainage; Animal Husbandry; Crops; Nutrition; Social Welfare) whose work was coordinated by the Steering Committee.

On 14 February, 1948, the last Plenary Session of the Conference unanimously adopted the reports and recommendations as submitted by the Committees and requested the Director General to present them to the Council of FAO (World Food Council) which is to meet on 5 April 1948, in Washington, and to stress the importance of immediate action being taken to implement the proposals contained therein. The Meeting stressed further the importance of close cooperation between the Near East countries which had been present at the Conference in seeing that these recommendations are carried through. The member countries of FAO who had not been able to present their immediate needs for assistance were authorized to do so within one month and submit them to the FAO Regional Office in Cairo which will pass them to the World Food Conference.

Following are the principal points of the recommendations adopted by the Conference.

The conversion of basin irrigated areas into a combination of basin irrigation supplemented by pumping-wells in Upper Egypt will provide water for summer crops and considerably reduce the expense of installing drainage works. 25,000 acres could be converted each year for 10 years at a yearly cost of 1,200,000 U. S. dollars, which would result in increasing crop production by approximately 50 % over the area served. Prompt delivery of the equipment needed for this project

and for drainage, additional canalization and other irrigation facilities for approximately 500,000 acres both in Upper and Lower Egypt would ensure an increase of from 20 to 100 % in agricultural production over the entire area benefited.

A five years' programme for irrigation and drainage development of an area of 600,000 acres in Iraq is under consideration; if the necessary equipment were assured, the work could be completed in a very short time. On the other hand, qualified technical personnel is needed for acceleration of the development of a comprehensive long range programme for irrigation and drainage.

In Syria, 250,000 acres could be brought under irrigation at a cost of 4,500,000 U. S. dollars provided an agreement is reached with Iraq on the use of water resources. To carry through this scheme Syria needs a loan and prompt delivery of the necessary equipment.

In Lebanon a 5,000,000 U. S. dollar irrigation scheme has been developed to serve 97,000 acres.

Ethiopia will submit her irrigation requirements directly to the FAO Regional Office which will pass them on to the World Food Council.

In view of the complexity of problems involved in these irrigation and drainage projects, it was decided that an FAO expert should work out a more detailed report on Irrigation, in consultation with the Governments concerned and submit it for consideration within one month.

The Conference asked FAO to call a Locust Conference as early as possible with a view to establishing an international organization to deal with the plagues of Desert and Moroccan Locust.

FAO is at the same time requested to sponsor the convening of periodic conferences of technicians in various sciences applying to agriculture and related subjects.

For the improvement of livestock in the Near East countries, it was suggested that FAO gives assistance to these countries in obtaining priorities for purchasing and shipping of chemicals, laboratory equipment, dairy machinery, etc. The training of members of a research staff on animal and poultry breeding, feeding, dairying, and artificial insemination was also stressed. If proper control of animal diseases is safeguarded, an increase of 20 % in meat, milk and egg production could be expected and better facilities given for the passage of meat animals from surplus to deficient areas. The use of imported livestock and hatching eggs would increase the production of meat, milk, eggs and wool by 200 or 300 %, thus contributing to a more balanced diet.

The Conference stated that between 60-80 % of the Near East population show signs of malnutrition and undernourishment. To improve these unsatisfactory conditions, it was suggested that a minimum supply of foods, especially of cereals, be given to distressed areas. Concerning

long term nutrition policy, the attention of the Conference was centred on raising by all possible means the standard of living and purchasing power of the population in general and of the low income groups in particular. Production or importation especially of protective foods should be encouraged and means of communication to facilitate the distribution of food and modern methods of preservation should be assured. The main task is, however, to educate the public in general, and the subject of nutrition should therefore be included in the curricula of all schools and all teachers, including home economics and medical schools. Special attention should be given to combatting parasitic and endemic diseases which are conducive to malnutrition. Until all the Near East countries have established training centres for technicians and nutrition work, the Nutrition Division of the Egyptian Ministry of Health in collaboration with FAO experts is to be employed for this purpose for the Near East countries.

In these countries, some 70 % of the population are concerned with agriculture. The Conference considered the raising of their standard of living to be the first pre-requisite for increasing their agricultural output. For this purpose, visiting and permanent professors, teachers and instructors, experts and technicians, laboratory equipment, drinking water supply and sanitation, technical advice, especially in connection with programmes of housing and land tenure are considered essential.

For the purpose of strengthening collaboration between the Near East countries, the Conference decided to ask the world Food Council to establish in Cairo the FAO Regional Office for the Middle East. The head of the office should be a top-ranking official who would safeguard the necessary coordination of the different Governmental policies. It is requested that FAO assign to the Office an adequate number of technical experts. An agreement was reached that at a later stage the member countries should each send at least one official to advise the Office on the needs of his country.

The Conference recommended that each member country should set up a National FAO Committee in order to assure a stronger liaison between the countries and FAO. It is suggested that these Committees should be composed of high level Government officials under the chairmanship of a head of the department concerned, and that they should use the services of non-governmental experts representing all groups of interest connected with FAO activities.

In his closing speech, Sir John Boyd Orr said that he was sure that the World Food Council could do its utmost to procure at the earliest possible date the materials and men needed to

enable the work agreed upon in Cairo to begin this year with the hope of seeing results in 1949 and 1950. Abd el Ahmed Ghaffar Pasha announced the decision of the Egyptian Government to make available to the Regional Office of FAO in Cairo, buildings and accommodation free of charge and to give such technical assistance as the various departments can afford for the general benefit.

A Liaison Officer of the European Information Service of FAO was in charge of the Information Service of the Cairo Meeting.

New Director-General of FAO

After the Review had gone to press, news was received of the elections by a special session of the FAO Conference in Washington of Mr. Norris E. Dodd as new Director-General of FAO, and Sir Herbert Broadley as new Deputy Director-General.

Mr. Dodd, rancher from the Western State of Oregon, U. S. A. has acquired wide experience in world food and agricultural problems. He has been in the US Department of Agriculture since 1933, and Under Secretary since 1946.

In 1938 he became assistant director of the Western region of the Agricultural Adjustment Administration and later became its director. The Administration supervised soil and range building programmes and produced and maintained supplies of agricultural commodities in amounts needed during peace and war. When AAA was merged with the Production and Marketing Administration, the organization which has done much of the post-war relief purchasing, Mr. Dodd was named director of its field service branch, where he served until becoming Under Secretary.

Mr. Dodd acknowledged the great responsibility of the new post at the meeting of the FAO special conference which acclaimed his election. He said the emphasis "must be upon concrete, practical action by and within each nation".

"Freedom from want," he said, "is certainly the most fundamental of the freedoms which mankind demands, and the most elementary want is certainly hunger. I do not say that FAO alone can bring the world a better and more secure food supply but I do say that FAO can help".

Sir John Boyd Orr welcomed Mr. Dodd to his new post, saying that he hoped that under Dodd's direction, all countries of the world might soon be members of this vital organization.

Sir Herbert Broadley is Deputy Secretary of the British Ministry of Agriculture and Chairman of the British National Committee of FAO.

We hope to give further particulars in our next number.

Resolution on the world food crisis

The United Nations Economic and Social Council, meeting in its Sixth Session at Lake Success, adopted a resolution inviting coordinated action among member nations to meet the continuing world food crisis.

The resolution recommended that member states take measures individually and in co-operation with FAO to contribute to the solution of the world food problem. Specialized agencies and regional commissions, in consultation with FAO, are invited to study suitable measures to bring about an increase in food production by the elimination of supply shortages such as those of oil, coal, steel, electricity, and chemicals which directly or indirectly affect the production of fertilizers, agricultural machinery and transportation.

The Nations agree on wheat

An international wheat agreement negotiated by the International Wheat Council Meeting in a special session in Washington was opened for signature on 6 March. Fifteen nations signed the agreement on that day, and another 21 nations have pledged themselves to sign by 1 April. Subject to ratification by the signatory nations, the agreement will come into force in August 1948.

The agreement involves 36 nations, all but two of them members of FAO. It extends for a period of five years. It provides minimum and maximum prices within which 500 million bushels of wheat a year will be sold by participating exporters to the participating importers.

FAO's interest in the sort of international cooperation evidenced by the wheat agreement was underlined last November when the Council of FAO forwarded a message of goodwill and encouragement to the International Wheat Council.

The Agreement creates a new International Wheat Council made up of participating nations. The agreement provides that FAO may nominate one non-voting representative to the Council.

Short News items

The Council of FAO opened its Second Session in Washington, 5 April, and recessed 6 April for the special session of the Conference. An application for membership in FAO submitted by Turkey 27 January was unanimously accepted.

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A programme for the development of the forestry resources of Latin America will be initiated at the International Forestry and Forest Products Conference to be opened 19 April at Teresopolis, near Rio de Janeiro, Brazil.

The meeting was called in response to a recommendation of the FAO Geneva Conference, and is the second of a series the first of which was held in Czechoslovakia last spring to consider European forestry and forest products problems.

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A series of important FAO meetings was held at Baguio, in the **Philippine Republic**.

At the end of February 1948, an organizational meeting to establish a Regional Council for the Study of the Sea for **Southeast Asia** was convened there. It was also concerned with the examination of fisheries research work with a view to compiling complete data on the potentialities of the area.

The meeting passed a recommendation for the formation of an 'Indo-Pacific Fisheries Council'. Representatives of the governments of Burma, China, France, India, Netherlands, Philippines, United Kingdom and the United States joined in the recommendation.

The Council will be established when the agreement has been ratified by five nations.

○ Concurrently a nutrition meeting took place to examine the methods of increasing and conserving the nutritive value of rice and improving rice diets.

Following the meetings on fisheries and nutrition, a meeting on Rice was held from 1 to 14 March, 1948; the Baguio Conference recommended the organization under the sponsorship of the Council of FAO of a world-wide campaign to salvage at least one of the 12 million tons of rice now lost between the paddy fields and the consumer's table; National Rice Conservation Committees are to be set up to act as planning bodies.

The main object of the meeting was to examine the measures to be taken following the recommendations passed by the Rice Working Group which met in Trivandrum, last year.

Dr. D. B. Flinn, Director of the **FAO Fisheries Division**, speaking at an East Coast Fisheries Conference in the Chateau Frontenac, in Quebec City on 3 February, 1948, said that in the short period between 1938 and 1946 the world's population had increased by 5.7%. At the present rate of increase, the population of Asia alone would increase by 400 million during the next twenty years; as the agricultural production there could not supply the protein foodstuffs needed, the resources of the sea should be assessed and managed. To stimulate and guide this work, FAO proposes to set up a number of Regional Councils, the first one being for the Indo-Pacific Ocean.

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Ethiopia joined FAO on 6 January, 1948, bringing the total membership of the Organization to 55. As a new member nation, she took part in the FAO Regional Conference in Cairo, 2-14 February, 1948.

* *

The Council of **FAO** (World Food Council) has established a **Policy Committee on Production and Distribution** composed of the representatives of eight member nations of **FAO** - Australia, Cuba, Egypt, France, India, the Netherlands, the United Kingdom and the United States. The Committee, acting between sessions of the Council of **FAO**, is charged to analyze, with the assistance of the **FAO** staff, the world picture of nutrition, production and trade, in order to make recommendations for increased production and improved distribution.

The first meeting of the Committee which was held at the beginning of January 1948 examined the best and simplest means to obtain information from member governments on the current food situation and on plans for stepping up the output; and heard a statement from Mr. Clinton P. Anderson, U. S. Secretary of Agriculture, on his country's plans for increase of agricultural production in non-European countries. Mr. Anderson drew the attention of the Committee to the Act adopted by the U. S. Congress and approved by President Truman on December 30th, 1947, which authorizes cooperation between the Government of the U. S. and other non-European governments for the purpose of stimulating and increasing food production. The Act, whose intention, as declared by Congress, is to combat inflation, foresees three categories of possible methods to be adopted: provision of technical assistance, furnishing tools of production, making advances and price guarantees.

Sir John Boyd Orr, Director General of **FAO**, welcoming Mr. Anderson's statement, said that it would be regarded by the 55 nations now collaborating through **FAO** as a further indication of the United States' intention to cooperate with and work through the United Nations Organization towards that social and economic stability and prosperity in all countries which is the first requirement of world peace.

Dr. Mordecai Ezekiel recently returned from a trip to the southeastern European countries. On this trip he conferred with agricultural and statistical officials in Budapest, Bucharest, Sofia, and Belgrade. He discussed with these officials ways in which **FAO** might be of service to them, and their collaboration in the study of national programs for the rehabilitation and reconstruction of European agriculture, which **FAO** now has underway in cooperation with the Economic Commission for Europe. Dr. Ezekiel is Head of the Agricultural and Industrial Relations Branch of the Economics Division of **FAO** at Washington. He has been temporarily located in Geneva since October 1947, where he is in charge of the European work on the study mentioned.

In all the countries visited Dr. Ezekiel found marked interest in the service **FAO** could provide,

by supplying information on recent scientific developments in various technical agricultural fields, by developing training or refresher schools or courses for experts in various lines, and by aiding in arrangements for scholarships or assistantships for study by qualified experts in other countries. There was also much interest in methods of improving statistical reporting services, and the exchange of such information between **FAO** and the official national statistical and economic offices. The general European-wide study of agricultural programs and of their international inter-relations was found to be of special interest to the planning officials and to the planning offices (each central office and each ministry separately).

* *

At their Fourth Meeting, in Rome, 17-21, February 1948, the European National Committees of **FAO** expressed a wish that a school on control of insect pests should be organized shortly. There is an imperative need for such a school as a great amount of stored foods is destroyed each year by pest of various kinds. The European **FAO** Temporary Bureau is at present exploring the possibilities of holding such a school in one of the European member countries of **FAO**, in order to demonstrate methods of reducing the damage and facilitating the exchange of expert information on the use of newly-developed chemicals and techniques.

In our next issue we hope to be able to give further details of these activities.

FAO publications

One means of increasing the world's food supply is to increase the amount of land growing food-stuffs. This idea is implicit in a new booklet, **Using Salty Land**, just issued by the Food and Agriculture Organization of the United Nations.

The 49-page book, written by H. Greene, Soils Specialist, Land Use Branch, Agriculture Division, **FAO**, points out that many areas of salty land can be reclaimed along the seacoasts of the world, and that there are even more extensive low, hot inland areas, some of which can be reclaimed.

The first requisite is to establish a sufficient flow of clean water from above the land to be reclaimed, the second is to see that there is good drainage to carry away the salts in solution. Once these primary needs are met, it is then possible to carry out intermediate processes such as the use of salt-tolerant plants that break up the soil and improve its tilth, the use of chemicals, and crop rotations.

Dr. Greene, who is now serving on an **FAO** Mission to Siam, gives examples of the methods used in reclaiming salty land in Anglo-Egyptian Sudan, China, Egypt, England, Germany, Hungary, India, Netherlands, New Zealand, U.S.S.R., and the United States of America. He concludes,

from the experience gained in these countries, that success in reclaiming salty lands "depends on a just evaluation of the physical conditions and on the effective and continued co-operation of people having varied skills".

Using Salty Land, which contains charts, tables, formulae, and a bibliography, will be most valued by soils specialists who want more information about reclamation methods used in various countries. Priced at 50 cents, the book can be purchased from the following FAO sales agents: *Denmark*, Einar Munksgaard, Nørregade 6, Copenhagen; *Netherlands*, N. V. Martinus Nijhoff, Lange Voorhout 9, s'Gravenhage; *Switzerland*, Librairie Payot, S.A., Lausanne. Thus far issued only in English, the book will later appear in French and Spanish translations. For countries in which there are as yet no sales agents, the book may be ordered from Documents Distribution and Sales Service, FAO, 1201 Connecticut Ave., NW., Washington 6, D.C.

○ Under this heading 'Thieves of stored grain' a 20-page illustrated pamphlet has been published by the Food and Agriculture Organization with a view to helping the world's farmers and handlers of grain to save stored food. The pamphlet, based on the discussions of a 27-nation Experts' Meeting on Infestation of Foodstuffs in London in August 1947, describes practical measures against rats, insects and fungi, which destroyed about 33 million tons of breadgrains in 1947, enough food to keep 150 million people alive for one year. It is pointed out that owing to the present commercial traffic, the attack on infestation should be taken up on a large international scale, and that, if immediate action is taken by governments and individuals, these losses could be cut by at least one-tenth in 1948 and about 3 million tons of food could thus be saved.

Copies of the pamphlet can be obtained from the International Document Service, Columbia University Press, 2960 Broadway, New York 27, N. Y.: price 25 cents.

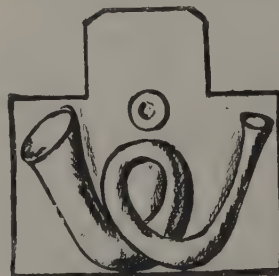
○ In January 1948 the first number of the FAO Agricultural Studies was published in Washington under the title: "Breeding livestock adapted to unfavourable conditions" (price \$ 1.50). The 182 page book prepared by Ralph W. Phillips, Head of the Animal Industry Branch, Agriculture Division of FAO deals with the problems of adaptability and summarizes important work that has been done in various parts of the world to determine the reactions of animals to their environment. After the introductory chapter on geographic and climatic limitations upon livestock production the specific problems of sheep, cattle, horse, swine and less known animal breeding are

dealt with. The book quoting a 5 page list of latest literature closes with chapters on methods of breeding and on improving the environments.

○ An 189 page book on **Soil Conservation**, including 100 half-tone photographs and maps (price Dollars 2) has been published by FAO in Washington. It reviews known techniques of combatting soil erosion, which causes the yearly loss of millions of acres and thus reduces the potential supply of food, fibres and timber. The need for soil conservation exists in most countries and valuable information on how to establish specialized agencies and develop conservation programmes is also given in this book. It may be obtained in Denmark, from Einar Munksgaard, Nørregade 6, Copenhagen; in France from Les Editions A. Pedone, 13 rue Soufflot, Paris V; in the Netherlands, from N. V. Martinus Nijhoff, Lange Voorhout 9, s'Gravenhage; in Switzerland from Librairie Payot, S. A., Lausanne: or directly from the Documents Distribution and Sales Service, FAO 1201 Connecticut Avenue, N. W., Washington 6, D. C., U.S.A.

In February 1948 the first trial number of a new monthly publication of FAO was issued in Washington under the title "*Food and Agricultural Statistics*". Its purpose is the provision of timely statistics on food and agricultural developments throughout the world, on crop areas and crop production, and of production forecasts at appropriate times during the year. It will regularly include numbers of livestock and livestock products, index numbers of wholesale prices and prices received by farmers for farm products, and data on export and import prices of selected individual foods and agricultural products, and on storage stocks and processing of foods.

NEWS IN GENERAL



Liquidation of the International Institute of Agriculture

A last moving Permanent Committee session of the former International Institute of Agriculture was held to-day in Rome, 27 February 1948. The delegates of 38 nations gathered together in the building of the Institute which was founded by the great American scientist, David Lubin, in 1905.

Sincere and moving speeches were made by the Rumanian, French and Italian delegates, re-collecting many famous international figures who had worked in the IIA and contributed to its success. The last Chairman of the Institute, Mr. McKey, of the United States, presided.

Assets of the Institute, such as the Library, files and records, including those of the International Forestry Section, become the property of the Food and Agriculture Organization of the United Nations to whom delegates extended their wishes for fruitful continuation of the work.

The delegate from China proposed the creation of an Academy of Agricultural Science, carrying the name of David Lubin, and which would work side by side with the European Regional Office of FAO. The FAO National Committees recommended Rome as the FAO European Regional Centre, the building having been generously put at the disposal of FAO by the Italian Government. The delegates unanimously approved this recommendation, particularly welcomed by delegates of France, Italy, Ireland, and Great Britain.

The Director of the Temporary European Bureau of FAO, Mr. S. L. Louwes, after thanking the personnel of IIA for their collaboration during the difficult period of liquidation since 1946, assured the delegates FAO would carry on the work of IIA.

United Nations appeal for children

In Europe about 40 million children under the age of 18 are in need of nutritional and medical assistance. In terms of numbers, there is an even worse situation in the Far East. Uncounted millions of children in Africa lack food and medical care. All over the world, children's needs are desperate, immediate and appalling, and call for urgent action.

On 29 March 1947, the Economic and Social Council of the United Nations adopted a resolution approving a proposal for a special world-wide appeal for voluntary contributions to provide the necessary relief work. An International Advisory Committee has been established to act as the centre of the campaign and to advise the Secretary-General of UNO on matters falling within the scope of his responsibilities. The burden of the work will, however, fall on national committees which are likely to be set up throughout the world.

The United Nations Appeal for Children (UNAC), whose Executive Director is Mr. Aake Ording of Norway, lately proposed the organization on a world-scale of a collection, under the slogan 'Give One Day for the World's Children'. Funds were to be raised solely on a voluntary basis from groups and individuals and not from governments. In view of the urgent necessity it was recommended that the drive should be expedited, and the month

of February 1948 was suggested for the purpose of coordinating the single actions.

We wish to draw the attention of our readers to this commendable initiative of the United Nations. Those who would like further information are requested to write direct either to Mr. Michael Lubbock, c/o United Nations Information Centre, Russell Square House, Russell Square, London, W.C.1, England, Chief Regional Representative UNAC for United Kingdom, Belgium, Holland, France, Denmark, Norway, Sweden, Ireland, Portugal, Switzerland, Iceland, Austria, Germany, Andorra, Luxembourg, Liechtenstein, Monaco, Finland; or to Mr. Václav Kostecky, Klimentaska 4, Praha II, Czechoslovakia, Chief Regional Representative UNAC for USSR, Byelorussia, Albania, Czechoslovakia, Bulgaria, Hungary, Rumania, Poland, Ukraine, Yugoslavia, Italy, Greece, San Marino.

American contributions towards Italian recovery

(Abstracted from data reported by the Roman agricultural information service).

The goods sent free to Italy by the United States during the early period of assistance totalled 10 million tons to a value of 590 million dollars. Up to June 1947, UNRRA was in charge of distribution operations. UNRRA's task in assisting countries which had suffered through the war came to an end but as Italy still needed considerable aid, UNRRA's work was taken over by AUSA. On 31 May 1947, the United States Congress approved a further aid program to a value of 121 million dollars. In December 1947, another 181 million dollars were voted in order to follow up assistance operations and on 22 March 1948 the House of Representatives, approved another contribution to maintain supplies until the European Recovery Plan could be put into effect.

The goods unloaded at Italian ports amount to 3,048,000 tons including 2,336,800 tons of fuel to the value of 24,026,826 dollars plus 589,000 tons of foodstuffs. Other goods are being purchased to the value of some 915,000 dollars. The total assistance estimated for the first and second AUSA programs amounts to 302 million dollars, namely, 180 milliard lire.

When unloaded in Italy, the material for agricultural purposes is stored with every care to prevent any loss, and subsequently distributed throughout Italy by the Italian Federation of Agricultural Consortia according to Government plan. The same organization also distributes the foodstuffs to the population. It is through this American assistance that it has been possible to maintain the bread and pasta rations. The goods were sold on the Italian market at prices below those of the

domestic market. The money obtained from these sales, in agreement with the United States Mission, has been assigned to Italian welfare and recovery operations, preferably to public works requiring the employment of manpower out of work. It is also used to reduce the national debt and to check inflation.

The Second Annual General Meeting of IFAP

The International Federation of Agricultural Producers (IFAP) will hold its second annual General Meeting in Paris, 19-29 May 1948. Items on the agenda include a discussion on the general policy of the Federation. The Meeting is to set up a Policy Committee which will prepare the basis for future decisions. The relationship of the Federation with UNO, its specialized agencies such as FAO, and other international organizations is one of the questions to be examined by this Committee.

Editorial Notice

In No. 3 of this Bulletin, on page 199, we published information based on data supplied by the Netherlands National FAO Committee, to the effect that the bread ration in the Netherlands is reduced as from 28 September 1947 by 200 grams a week for all persons of over 5 years, bringing it down to 2,000 grams a week for persons of 21 years and over, 2,800 for persons of 5 to 20 years and 2,400 for children of 4 to 5 years.

The Netherlands National FAO Committee has asked us to rectify this statement which should read as follows:

As from 28 September 1947, the bread ration in the Netherlands is reduced by 200 grams a week for all persons of over 5 years, bringing it down to 2,000 grams a week for persons of 21 years and over, 2,800 for persons of 15 to 20 years, and 2,400 for children of 5 to 14 years.

* *

We regret to announce the sudden death of Mr. Karel Kavina, President of the Czechoslovak Academy of Agriculture, and Chairman of the Czechoslovak National Committee of FAO, in his 57th year, on 21 January 1948.

* *

The Marquis Louis de Vogué, President of the International Confederation of Agriculture, and who, since 1944, has also directed the work of the French Academy of Agriculture, has just died at the age of eighty. He took an active part in the work of the former International Institute of Agriculture in Rome as well as in that of the In-

ternational Labour Office in Geneva. He had been called upon recently to fill a place in the Administrative Council of the Bank for International Settlements.

National and International Meetings and Congresses

March	2 to 7	<i>Paris</i> , XXth Agricultural Machinery Salon, under the patronage of the Minister of Agriculture. The IIIrd National Congress of Agricultural Property took place during the Salon.
April	13	<i>London</i> , International Meeting of Salt Fish Producers.
	26 to 29	<i>Paris</i> , Ist International Congress of Fruit Juice Producers.
May	3 to 14	<i>Algiers</i> , XIIth International Olive-growing Congress organized by the National Olive-growing Society of France and North Africa with the assistance of the Algerian Government General and the International Olive-growing Federation.
	10 to 15	<i>Paris</i> , International Accountancy Congress under the august patronage of the President of the Republic. For the first time, agricultural accountancy will have a special section.
	19 to 29	<i>Paris</i> , IInd General Annual Assembly of the International Federation of Farmers.
June	7 to 13	<i>Alès</i> (France), International Silkworm Congress organized by the Alès Experiment Station.
	14 to 20	<i>Lyons</i> , International Silk Congress
	17-18	<i>Amsterdam</i> , Seventeenth International Wool Conference announced from the Bradford Headquarters of the International Wool Textile Organization.
	23 to 30	<i>Milan</i> , Ist International Congress for the Physiopathology of Animal Reproduction and Artificial Insemination under the auspices of the Spallanzani Institute, of the University of Milan, of the National Research Council, of the High Commissioner for Hygiene and Public Health and of the interested Ministries.
July	12 to 18	<i>Paris</i> , VIIth International Congress of Food and Agricultural Industries, organized by the French Ministry of Agriculture under the scientific and technical direction of the International Commission of Agricultural Industries.

FAO Meetings

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| April 5 | Washington, Second Session of
FAO Council. |
| 19 | Terresopolis (Brazil), International
Forestry Conference |
| July 28 | Montevideo (Uruguay), Latin
American Nutrition Conference. |

International Fairs

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| March | 8 to 15 | <i>Basle</i> , International Fur and Leather Fair. |
| | 12 to 21 | <i>Prague</i> , International Spring Fair. |
| | 14 to 21 | <i>Vienna</i> , Spring Fair. |
| | 14 | <i>Verona</i> , International Agricultural Fair. |
| | 19 to 23 | <i>Budapest</i> , Agricultural Fair and Breeding-Stock Market. |
| April | 6 to 15 | <i>Utrecht</i> , International Fair. |
| | 17 to 28 | <i>Brussels</i> , International Fair. |
| | 17 to 28 | <i>Brussels</i> , International Horticultural Exhibition. |
| | 24 to 9 May | <i>Poznan</i> , International Fair. |
| May | 2 to 23 | <i>Prague</i> , Agricultural Jubilee Exhibition of the Slav Countries with the participation of the U. S. S. R., Poland, Yugoslavia, Bulgaria. |
| | 5 to 17 | <i>Geneva</i> , Franco-Swiss Food and Domestic Arts Fair. |
| | 8 to 17 | <i>Zagreb</i> , International Fair |
| July | | <i>Brussels</i> , Food Industries Exhibition. |

AGRICULTURAL NATIONAL
PUBLICATIONS



Below we publish a selection of agricultural periodicals. We trust these will be of interest to our readers.

NETHERLANDS

- Bedrijfsvoorlichting*. — (Agricultural Information Bulletin) (monthly). Erasmushuis, 9th floor, Rotterdam.
- Chemisch Weekblad*. — (Weekly Chemistry Journal). D. B. Conten's Uitgevers Maatschappij, Sarphatipark 12, Amsterdam.
- Economische Voorlichting*. — (Economic Information Bulletin) (daily). Bezuidenhoutseweg 64, 's-Gravenhage.

- Economische Statistische Berichten* — (Economie and Statistical News) (weekly). Pieter de Hoochstraat 5, Rotterdam.

- Fruitteelt* — (Fruit Growing) (weekly). Raamweg 27,
's-Gravenhage.

- Landbouwkundig Tijdschrift* — (Agricultural Journal) (monthly). Edeseweg 123, Bennekom.

- Maandblad voor de Landbouwvoorlichtingsdienst* —
(Monthly Journal of the Agricultural Information
Service) Issued by the Ministry of Agri-
culture, Fisheries and Food, 's-Gravenhage.

- Maandschrift van het Centraal Bureau voor de statistiek* — (Monthly Bulletin of the Central Bureau for Statistics) Firma de Haan, Rembrandtkade 54, Utrecht.

- Maandschrift Economie* — ('Economics', a Monthly Bulletin) Bredaseweg 57, Tilburg.

- Mededelingen Directeur van de Tuinbouw* — (Bulletin from the Director of Horticulture) (monthly)
Bezuidenhoutseweg 30, 's-Gravenhage.

- Mededelingen N. A. K. G.* — (Bulletin from the Netherlands General Vegetable Testing Service) (fortnightly). Laan Copes van Cattenburch 56, 's-Gravenhage.

- Mededelingen N. A. K. voor Landbouwzaden en aardappelpootgoed* — (Bulletin from the Netherlands General Testing Service for agricultural seeds and seed potatoes) (monthly). Zoomweg 11, Wageningen.

- Medelingen van de Vereniging Het Nederlands Rundvee-Stamboek* — (Bulletin of the 'The Netherlands Herdbook' Society) (published irregularly). Surinamestraat 24, 's-Gravenhage.

- Nederlands Bosbouw tijdschrift* — (Netherlands Forestry Journal) (monthly). Zweerslaan 14, Bilt-hoven.

- Nederlands Melk -en Zuivelijdschrift* — (Netherlands Milk and Dairy Journal) (quarterly). 't Hoenstraat 5, 's-Gravenhage.

- Nederlands Weekblad voor de Zuivelbereiding en Handel* — (Netherlands Weekly Journal for Dairy Products Trade and Manufacture). Misset, Doetichem.

- T. N. O. - Nieuws* — (Bulletin of the Bureau for the Application of Physical Research) (monthly). Nobelstraat 27, 's-Gravenhage.

- Tijdschrift voor Diergeneeskunde* — (Veterinary Journal) (fortnightly). Begijnhof 7, Utrecht.

- Tijdschrift voor Economische Geografie* — (Journal of Economic Geography) (monthly). Banierstraat 1, Rotterdam C.

- Tijdschrift van het Koninklijk Nederlands Aardrijkskundig Genootschap* — (Journal of the Royal Netherlands Geographical Society) (Monthly).
Herengracht 619, Amsterdam.

- Tijdschrift over Plantenziekten* — (Journal about Plant Diseases) (bi-monthly). H. Veenman en Zoon, Wageningen.

- De Visserijwereld* — (Fisheries) (weekly). Nobel-
straat 27a, 's-Gravenhage.

- Voeding* — (Nutrition) (published irregularly).
Laan van Meerdervoort 84, 's-Gravenhage.

- De Zaadwereld* — (Seeds) (weekly). Parklaan 14b,
Haarlem.

LEGISLATIVE NEWS

SUMMARY : I. **NUTRITION :** (a) Agricultural products in general (Austria, Denmark, Finland, Sweden); (b) Cereals, Flour, Bread (Belgium, Norway, Poland, Portugal); (c) Soups, Juices, etc. (Netherlands); (d) Meat (Belgium, Italy); (e) Milk and Cheese, Eggs (Belgium, Poland, Switzerland); (f) Oil (Italy, Portugal); (g) Sugar (Switzerland). — II. **AGRICULTURE :** (a) Organization of Agriculture (Belgium, Italy, Portugal); (b) Relief and premiums (Belgium, France, Italy); (c) Land Reclamation (Norway); (d) The control of plant pests (Belgium, France, Czechoslovakia); (e) Stockbreeding (Belgium, Finland); (f) Agricultural contracts (Switzerland); (g) Agricultural machinery (Denmark). — III. **ECONOMICS AND MARKETS :** (a) Price control (Finland, France, Norway); (b) Agreements and Conventions (Italy); (c) Control of domestic and foreign trade (Denmark, Finland, France, Norway); (d) Trade marks (France). — IV. **STATISTICS** (Denmark, Finland, France). — V. **FORESTRY** (France, Italy). — VI. **FISHERIES** (Denmark, Norway, Poland). — VII. **RURAL WELFARE :** (a) Agricultural co-operation (Italy); (b) Social security (France); (c) Rural dwellings (Denmark).

I. - NUTRITION

(a) Agricultural products in general.

AUSTRIA

A Federal Act of December 18, 1947 (*B.G.B.L.*, No. 7, February 3, 1948, p. 239) provides that foodstuffs, animals, and animal products, and all the other agricultural products as established by the Act, will be regulated in conformity with the provisions contained therein and in the decrees to be issued later on; whether these goods be produced in the Austrian Länder or be imported from abroad.

Agricultural products must be delivered by the producers in return for compensation (a) in quota amounts fixed according to the size of the areas cultivated and producing regulated products, to the number of animals, or as determined by other characteristics; (b) or else the total amount produced, if the products are not intended for personal consumption for raising livestock on the farm, or for use in cultivating and planting.

These products must be delivered to certain authorized purchasers who, in their turn, must make them available to marketing organizations to be agreed on later.

The Act contains a number of other provisions, among which some relating to the use of edible cereals fit for human food as fodder, the restrictions placed on persons and farms unable to avail themselves of sufficient fodder in the purchase and

raising of livestock, and the use of cereals for human food distilling brandy.

The enforcement of this Act is entrusted to the Ministry of Food jointly with the Ministry of Agriculture and Forests and the other Ministries concerned.

DENMARK

A decree No. 480 of November 27 (*L.A.*, No. 63 November 29, 1947 p. 1351) contains provisions issued under Act No. 158 of March 29, 1943, containing measures relating to revictualling etc. and requiring return to be made of stocks of oil-cake existing in the country on November 14, 1947, and also of stocks of mixed feed.

It fixes a duty chargeable on each lot of 100 kilograms, on which however, a reduction of 1/3% may be granted in those cases in which the 'Government Bureau for Cereals' considers that the volume of stock has been returned without taking into due account the shrinking the products may suffer.

In relation to the rationing of foodstuffs, a Notification No. 544 of December 29, 1947 (*L.A.* No. 74, December 30, 1947, p. 1430) prescribes that as from December 30, 1947, potato flour and tapioca flour may only be sold on the presentation of coupons, in conformity with the rules issued to this effect.

Special provisions regulate the rationing of sugar and butter until the end of March, 1948; as from

April, the ration cards delivered by the municipal administrations will be provided with special coupons for potato and tapioca flour.

A number of detailed provisions have been issued for assuring the stocks required by retailers selling the aforesaid products; for regulating the filling up of the forms (returns); distribution to wholesalers, penalties incurred, etc.

FINLAND

A Resolution passed by the Council of Ministers No. 91 of February 5, 1948, (*F.F.*, No. 90-94, *February 7, 1948*, p. 118) establishes the allocation of premiums, to be drawn on Government funds, in those cases in which the quantity of agricultural products delivered to the pools exceeds that prescribed. It should however be remarked that if the number of units delivered is less than 200, the aforesaid premiums will not be allotted.

In those cases in which the producer has not received the sum to which he is entitled as a premium before the end of the year, his right thereto lapses.

SWEDEN

A Decree No. 933 of December 5, 1947 (*S.F.*, No. 932-933, *December 22, 1947*, p. 2380) contains provisions for the census of stocks of certain foodstuffs existing in the country.

The chief products for which returns are to be made are:

Roasted coffee, unroasted coffee, tea, cocoa, Jamaica pepper, black pepper, white pepper, cinnamon, cardamom, cloves, oat-seed, potato flour split peas, etc., etc.

The returns are required for the stocks existing in the country at the end of 1947 and for the stocks already stored with the holders at the end of 1946.

These returns are required of all persons engaged in wholesale trade and of all those whom the Commission charged with the supervision of foodstuffs may ask to supply the data.

The Decree, of course, lays down the procedure to be followed in making the returns and the exemptions, omissions, etc.

For the same purpose of the control to be exercised on the stocks of foodstuffs, a Royal Decree No. 934 of December 19, 1947, (*S.F.*, No. 934, *December 22, 1947*, p. 2383) requires all persons engaged in the trade in foodstuffs to supply precise statements about their stocks.

These statements must be delivered in writing to the competent committee, in conformity with the prescriptions which will be published later on, and must refer to the stocks already warehoused with the holders at the end of 1947, or which have been ordered of the purveyors.

The aforesaid decree is to be considered as the 'rationing charter', in conformity with the decree of June 17, 1943, relating to the trade in foodstuffs subject to rationing.

(b) Cereals, flour, bread.

BELGIUM

The Decree of January 29, 1948 (*M.B.*, No. 36, *February 5, 1948*, p. 945) authorizes bakers to make milk loaves. Nevertheless, they are forbidden to use in making this bread the cream of native milk, whole or standardized milk, and butter.

The Ministerial Decree of February 2, 1948 (*M.B.*, No. 37, *February 6, 1948*, p. 961) requires all bakers and confectioners to make a return of their stocks of flour as on February 14, 1948,

The Decree of February 13, 1948 (*M.B.*, No. 46, *February 15, 1948*, p. 1212) authorizes the use of eggs by confectioners and bakers, previously forbidden by the Decree of October 2, 1947.

The Ministerial Decree of February 12, 1948 (*M.B.*, No. 50, *February 19 of 1948*, p. 1341) lays down that approved millers grinding grain to order of customer are required to keep an account of all receipts and exits of cereals, flour, and refuse. All cereals, flour, or refuse held on any grounds whatsoever, with the exception of flour in the flour-bin, must be sacked. Each sack must be labelled with the name of the producer and the quantity contained in the sack.

NORWAY

Mention should be made of the new provisions decreed on December 16, 1947 (*N.L.*, No. 1, *January 9, 1948*, p. 1) which make some additions to those of August 9, 1945 relating to the sale and use of home grown cereals and peas.

As from December 16, the use of wheat, rye, and their by-products as fodder for livestock is forbidden.

Producers are also forbidden to use cereals or peas in their homes unless they deliver up an equivalent number of ration cards.

The new rules also provide that all cereals must be milled by the Government Cereal Enterprise unless the party concerned has previously obtained a special permit from Commission of supplies of the district in which he resides.

POLAND

An Order published on October 2, 1947 by the Minister of Provisions jointly with the Ministers of Commerce and Industry, Agriculture, etc. (*D.U.R.P.*, No. 67, *October 31, 1947*, text 419, p. 1150) amends the Order of May 2 1947 relating to the milling of cereals and the fees due to the mills. (See *European Review of the FAO*, No. 2 of 1947, pp. 167-168). The new Order lowers the minimum rates of extraction to 80% for rye and 70% for wheat (instead of 90% and 80% respectively as fixed by the previous Order). The new Order fixes at 65% the minimum rate of extraction for barley. It moreover specifies that the Minister of Provisions may authorize some mills to produce, and some

dealers to sell flour at a still lower rate of extraction with a view, in the case of wheat and rye, to the nourishment of children and invalids, or for the needs of the church; and, in the case of barley, with a view to using barley flour in addition to other flour in making pastry.

PORTUGAL

The Decision taken by the Minister of Economy on November 13, 1947 (*D.d.G., 1st series, No. 264, November 13, 1947, p. 1126*) specifies that the National Federation of wheat producers will purchase, until May 31, 1948, all the maize grown in the country, of sound quality and dry, offered by the producers.

The preamble, which is the longest part of the decision, explains that, faced by an insufficient harvest, the Minister of Economy has constantly endeavoured to assure, with the help of imports, sufficient maize to meet the needs of the country, contributing thus, as well as by repressive measures, to check any tendency to speculation which might be too careless of the national interest and of the situation of the consumer. On the other hand, it is not desirable to force down prices, as this might endanger production. In view of these circumstances, the decision does not attempt to regulate the trade as a whole, but only fixes a minimum price of 1.85 *escudos* per kilogram at which the National Federation of wheat growers (the F.N.P.T) is prepared to purchase, until May 31, 1948 all maize grown in Portugal of the 1947 crop sound and dry, offered it by the growers. The price is for maize f.o.b. the nearest station; the allowance for impurities must not exceed 3%.

A Decision taken by the Minister of Economy on December 16, 1947 (*D.d.G., 1st Series, No. 291, December 16, 1947, p. 1515*) fixes the maximum prices of maize, bread, and flour. While the decision of November 13, above cited, aims at protecting the grower by assuring him, in view of the large arrivals of imported maize which are expected, a minimum price, the decision of December 16 deals with the protection of the consumer against possible speculation. It should be noted that the prices fixed (2.50 per kg. for flour and 1.90 to 2.00 per kg. for bread, according to whether they are sold in the country or in the town) though slightly above the present level in the big centres of population, will be advantageous for the majority of the population. The supply of imported maize to gross millers will be made, as heretofore, by the Committee for regulating gross (or rough) milling, which will also watch to see that the fixed prices are respected. The millers retain the right to purchase freely maize grown in Portugal, but they may not for this reason increase the prices fixed by the decision in question. The penalties for infringing the prescribed rules are those stated in the Decree-Laws No. 29, 964; 31, 867; and 35, 809; etc.

A Decision of the Minister of Economy of January 27, 1948 (*D.d.C., 1st Series, No. 23, January 28, 1948, p. 88*) fixes the maximum prices for rye bread and flour. These prices are fixed with a view to normalizing food supply in the consuming areas and are as follows: flour rebolted (average rate of extraction 80%) 2.90 *escudos* per kg.; flour unrefined 2.50; bread 2.40 per kg.

(c) Soups, Juices, etc.

NETHERLANDS

The Decree of November 8, 1947 (*Sibl., No. H 365 November 28, 1947*) relates to flavours, juices and soups. It considers six groups of products, three of which are solids (*cubes, tablets, granules*) or in the form of pastes, to wit: (1) *extracts* similar in their properties or appearance to the products considered under art. I, par.4, of the Decree of 1924, amended, dealing with meat extracts; (2) *soup mixtures* to be used in preparing soups; (3) *juices* or *saucers*; and three groups of liquid products, to wit: (4) *flavourings* for dishes or soups, or for both, prepared from albumin (disintegration) of albuminated materials and yeasts; (5) *vegetable extracts* for improving the aroma and flavour of dishes (extract of soja may be described as *soja*); and (6) *appetisers*, or *ketchups*, or salad dressing without oil, for giving a piquant taste, containing vegetable extracts or spice extracts with perhaps the addition of vinegar, salt, spice, flour, etc. The products belonging to group 1 must supply a tasty broth-like liquid; their minimum total nitrogen content is 3%, amino-acid nitrogen 1.5%; dry matter free from table salt not less than 30%. The products belonging to group 2, when added to water in the quantity stated, must provide an agreeable tasting soup, containing not more than 18 grams of salt per litre. The content of dry matter, free from table salt, must be at least 50%. The minimum creatine content of liquid soup, prepared to the recipe given, is prescribed; it varies with the nature of the product as indicated by the exact name given it; should the content not attain the prescribed quantity, special descriptions are prescribed such as '*meat flavour*', etc. Similar provisions hold good for group 3. In their case, the salt content of the product when prepared for consumption may amount to 25 grams per litre. In the case of group 4 the nitrogenous content is the same as for group 1, the minimum specific weight at 15° is 1.25, the minimum content of dry matter free from salt is 25%. The decree likewise prescribes the minimum content in dry matter free from salt for vegetable extracts and appetisers (20% and 10%). Should the names given to the products belonging to the several groups, or other statements on the packages, specify the presence of fats, the minimum fatty content must not be less than 10%; should they be described as

'rich in fats' the minimum fatty content is 25 %. For all products other than soups and juices, the use on the packages, etc., of words or designs that may suggest the presence of meat or meat extracts is forbidden. The general conditions to which the products must comply are as follows: they must be made from raw materials of good quality, suited for food purposes, and without the addition of filling up materials possessing no nutritive value or harmful to health; they must be in good condition and free from mould; they must not give an alkaline reaction on litmus paper; they must contain no synthetic colouring matter; they must contain no colouring matter other than those the materials employed may contain, except in the case of sauces intended to replace those made with butter, when a certain dose of S yellow obtained from naphthol is allowed; they must contain no preservatives other than salt, except in the case of piquant sauces in which a certain dose of benzoic acid or benzoate (250 mgm. of acid per kg.) is allowed.

The Decree regulates details relating to names, descriptions, and instructions given on the parcels, the size of the type to be used, the statement of the net quantity in units of volume or weight as the case may be. The Decree of the S.G. for social affairs, dated February 6, 1943, (*N.S.*, No. 55) is repealed.

Lastly, the Decree is accompanied by three annexes dealing with: methods of *analysis* for ascertaining the quantity of water, table salt, other dry matter, nitrogen, creatinine the products contain; the *reagents* to be used; and the list of *standard solutions*.

(b) Meat.

BELGIUM

The Decree of December 22, 1947 (*M.B.*, No. 11, January 11, 1948, p. 291) fixes the quantity and the rules for the compulsory delivery of beef, mutton, horse-meat, and pork on the hoof.

The Ministerial Decree of January 26, 1948 (*M.B.*, No. 31, January 31, 1948, p. 818) repeals several restrictions. The regulation requiring the delivery of livestock to the markets is repealed. The markets continue to work in so far as they are free markets. The purchase and sale of livestock and meat are no longer subject to the rules for the rationing of foodstuffs. Each purchaser may select the slaughter-house at which he wishes to have the animals he purchases slaughtered, except in the case of imported livestock. Nevertheless, the sale of meat and its supply in restaurants and other eating-houses on Tuesdays and Fridays is forbidden.

ITALY

A Decree No. 1403 of November 30, 1947 (*G.U.*, No. 292, December 20 1947, p. 3739) suspends until January 15, 1948, the restrictions placed on the

sale to the public and the serving in restaurants and other public places of fresh or frozen lamb and plucks, as an exception to the provisions contained in the Decrees No. 211 and 212 of April 12 and 14, 1947.

(e) Milk and cheese, eggs.

BELGIUM

The Decree of December 23, 1947 (*M.B.*, No. 9, 1948, p. 242) contains several provisions relating to dairy stock, the delivery, preparation, marketing and stamps affixed to milk and fats. The keepers of cattle must make a return on January 31, 1948 showing the consistency of their dairy stock. Any subsequent alterations in the consistency of such stock must also be notified. The Minister of Re-victualling and Imports may give a written permit to certain producers authorizing them to deliver their products in one of three manners: (1) partly as milk and partly as cream; (2) as cream; (3) as butter. Wholesale collectors may not collect butter without a permit from the Ministry, and they are required to secure their supplies from producers holding the required licence. The producers may change the dairies or wholesalers to whom they delivery their products at the beginning of each rationing period. Any change is forbidden during the rationing periods, and dairies and wholesalers also are required to take the dairy products which they have undertaken to collect. The producers who may produce standardized milk, cheese, or dry milk are specified. The use of the stamps to affix to milk and fats is regulated. Special measures regulate the transport and storage of butter.

The Decree of December 23, 1947 (*M.B.*, No. 14, January 14, 1948, p. 255) contains other prescriptions relating to the delivery of dairy products. The producer is required to place his milk at the disposal of the dairy opening on the road nearest to the local collecting station or skimming centre. The collection of dairy products may be entrusted to a producers' syndicate recognized by the Minister of Agriculture. Persons keeping one cow only are exempted from the obligation of delivery. The quantities of milk that keepers of cows are required to supply are fixed in tables annexed to the Decree.

POLAND

The Decree of October 28, 1947 (*D. U. R. P.*, No. 67, October 31, 1947, text 416, p. 1145) deals with dairying. For the purposes of the decree, dairies are all establishments handling or processing milk, or other dairy products with a view to consumption. It deals with the power of regulating dairies by ministerial orders issued by the Minister of Commerce and Industry (called hereinafter the Minister), acting either by himself or jointly with

other Ministers as the case may be. Moreover, the Decree contains articles dealing with the registration of dairies and the inspection of milk and dairy products, and with export trade, and ends by measures prescribing penalties for offenders. The subsequent Orders to be issued under the powers conferred by the Decree will deal with the range of activity of the dairies, the calculation of prices on the basis of the quality of the milk and its fatty content, the information to be supplied by the dairies on their stocks of raw products, and their output; the inspection and sampling of the products; installations and equipment; the technical systems used in the preparation of the dairy products; exporting, packing and marking; the conditions the exported products and the respective dairies must meet and the possible need of special registration for this purpose; the service of supervision to assure respect of the Decree and supervision of exports, and the principles governing said supervision; the conditions to which the milk and dairy products placed on sale must comply; trade in all these products; the establishment of a Dairying Institute to carry out scientific and technical research work in this field. To assure the inspection of milk and its products Dairy Inspectorates are set up by the Minister in connection with the official bodies and institutions specified by him which will regulate the said activities; dues will be levied in their behalf. Dairies may only start work or continue it when they have registered with their respective inspectorate, which will first assure itself that their equipment is satisfactory and, if need be, will grant them a delay sufficient for meeting requirements. A registered dairy which delays unduly starting work or which fails to comply with the regulations will be struck off the register. Dairies not accepted for registration and struck off the register must be wound up within three months of the date of the final decision, and the public must be informed of their situation. Supervision exercised over dairies through the Inspectorates covers their plant, their business books, other documents or accounts, the inspection of the milk and of the other products by taking samples. The Inspectorates will also certify that the dairies comply with the conditions required for exporting their products, as prescribed by a special order to be issued later; and they will proceed to register in a special book such dairies, (export dairy establishments), a list of which will be published. With special reference to the bodies charged with supervising the execution the decree specifies that they may make their inspections in the dairies, at the places where the goods are loaded, and at the frontier stations, and sometimes even during their transportation; they may examine the books and accounts and take samples. The Minister may also regulate the training of persons operating dairies and the means by which they are accepted. The decisions taken as

a result of the enforcement of the Decree will be taken by administrative procedure, unless there be a clause in the Decree or in the subsequent Orders providing otherwise; they will allow of appeal to the Minister, who may have the appeals settled by the prefects (*voivodes*) of the provinces. The penalties provided are as follows: imprisonment for not more than 3 months and fines not to exceed 300,000 zloty in the case of persons infringing the provisions relating to the registration of dairies in general or those relating to exports, save for the exception stated below; and imprisonment for a period not to exceed 15 days and fines for amounts not to exceed 50,000 zloty in the case of persons exporting products that do not comply with the conditions prescribed, or who fail to give the samples required, or to facilitate the work of the supervising bodies, or infringe the rules regulating the trade in the said products (purchase or sale), or relating to the farms producing them. The administrative authorities are qualified to prescribe penalties. The Decree places no limitation on rights arising from international agreements. It does not affect the provisions of the Presidential Decree of March 22, 1928, text 343, relating to foodstuffs, etc. The Act of April 22, 1936, text 272, on dairying, is repealed.

SWITZERLAND

The Order No. 192 of February 3, 1948 (*R.L.F.*, No. 3, February 12, 1948) repeals the rationing of milk and dairy products. Nevertheless, with a view to assuring the regular provisioning of the country, the measures remain in force requiring the compulsory delivery of milk and dairy products, and the measures regulating the use of milk and the supply of milk to be consumed as such, and of dairy products.

(f) Oil.

ITALY

A Ministerial Decree of December 19, 1947 (*G.U.*, No. 297, December 27, 1947 p. 3798) fixes the prices at which the stocks of oils held by the pools of the 1947-48 crop may be withdrawn. In the case of edible oil the price is 44,467.50 lire per quintal. This includes the quota of the cost of management of the pools, the rate charged by the UNSEA for its working expenses, the reserve fund, the general tax on turnover amounting to 2,117.50 lire per quintal. The price for lamp-oil, acidity 7° is 37,600 lire per quintal, inclusive of the share of the cost of management of the pools and the charge made by the UNSEA to cover its working expenses.

PORTUGAL

The Order No. 12,163 of the Minister of Economy of December 5, 1947 (*D. d. G., 1st Series, No. 282, December 5, 1947, p. 1240*) deals with the formation of an oil reserve to be placed on the market during the 1948-49 season, etc. The Order No. 12075 of October 18, 1947, (see *European Bulletin of the FAO, No. 4, February-March 1948, p. 332*), on the trade and marketing of oil, provided for the formation of this essential reserve set up under the new Order which takes advantage of the good crop now being gathered. In view of the abundant yield of the crop the order relies for the formation of the reserve on voluntary offers for sale, and requisitions, which were the rule in the case of former reserves, will only be had recourse to later on, in case of need. The reserve that the national oil *Junte* is to form, under conditions it will lay down in consultation with the *gremio* of oil warehousemen and exporters, will be formed with the oil held by the warehousemen, who will store it and receive an indemnity to cover cost of interest, waste and insurance. The *Junte* may transfer to them any quantities of oil offered to it which it does not itself purchase; this oil may either be placed forthwith on the market or may be used to form reserves. The *Junte* is instructed to take the necessary steps for giving effect to the Order.

(g) Sugar.

SWITZERLAND

A request for a referendum bearing more than 30,000 signatures has been presented against the Federal Order of June 28, 1946, regulating the sugar regime, and the Federal Council — in conformity with the Swiss Constitution — has fixed March 14, 1948 as the date for taking a poll on the subject. Order of December 18, 1947 (*Feuille fédérale, No. 51, December 24, 1948, p. 997*).

On the other hand, the Ordinance No. 50 of February 3, 1948, of the Federal Department of Public Economy, repeals the rationing of sugar. (*R. L. F., 3, February 12, 1948, p. 69*).

II. - AGRICULTURE

(a) Organization of agriculture.

BELGIUM

The Decree of December 17, 1947 (*M.B., No. 44, February 13, 1948, p. 1149*) sets up a Co-ordinating Committee as between the several ministries dealing with agriculture, economic co-ordination, and national re-equipment. The purpose of the Committee is (1) to study means for coordinating the work of the two departments in so far as it relates to rural re-equipment; (2) to organize research pro-

grammes and plans for re-equipping undertakings subsidized by the Government; (3) to submit proposals for common solutions. It may set up sub-committees for the study of special problems.

ITALY

A Decree No. 1427 of October 9, 1947 (*G.U., No. 295, December 24, 1947, p. 3778*) transfers to the Ministry of Agriculture and Forests the powers exercised by the Government administration under Acts, regulations, and statutes, relating to the national association of sugar-beet growers and to the Institute for sugar-beet seed.

A Decree No. 1434 of October 9, 1947 (*G.U., No. 296, December 26, 1947, p. 3786*) authorizes the expenditure of one milliard lire for granting of the contributions provided for by art. 1 of the Decree No. 31 of July 1, 1946, containing measures for controlling unemployment and for encouraging the higher yield of farm undertakings. This outlay, charged to the Ministry of Agriculture and Forests, is to cover the cost of technical assistance and the supervision of the use made of the money.

PORTUGAL

The Decree-Law No. 36681 of December 19, 1947 (*D. d. G., 1st Series, No. 294, December 19, 1947, p. 1325*) regulates the establishment and working of the federations of *gremios* for tilling the soil. The soil tilling *gremios*, or non-specialized agricultural *gremios*, are corporative organizations for the agriculturists (*not agricultural workers*) of each municipality and have been regulated by the Act No. 1957 of May 20, 1937 and by the Decree No. 22949 of March 22, 1939 (On tilling *gremios* or *gremios* of farmers and the corporative organization of agriculture in Portugal in general, see *Annuaire International de Législation agricole, XXVII Année 1937 - Act No. 1, 1957, pp. 583-587; XXIX Année 1939; Decree No. 22,949, pp. 444-454; and Jose Teixeira Ribeiro. The corporative organization of agriculture in Portugal, in the International Bulletin of Agricultural Law, No. 9, Vth year 1944, No. 1, pp. 22-30*). The new Decree-Law regulates the federation of the aforesaid *gremios*, set up on a provincial basis, which however allows of municipalities belonging to neighbouring provinces being incorporated when it seems advisable to do so. The federations have autonomous administration and operation, they are legal entities, they represent legally the *gremios* affiliated to them whose interests they safeguard in their relations with the Government and other bodies. Their task has been defined as follows: to co-ordinate, direct, and supervise the action of the *gremios*; to exercise the political functions conferred on them by the Act on corporative bodies; to represent agriculture in the organizations on which such representation is foreseen; to attempt to conciliate disputes arising between

the affiliated *gremios*; to submit and support the initiatives taken by the *gremios* when they need to be carried out on a federal scale; to give opinions on questions submitted to them by the Government or by the superior corporative organizations or by organizations for economic coordination; to exercise regulating activities in regard to the *gremios*. The federations are placed under the Under-Secretary of Corporations, and are subject to the supervision of the National Institute of Work as regards their position in the corporative system and their relations with other organizations, as well as in regard to social activities, wages, labour and social insurances. They are placed under the Ministry of Economy as regards their technical orientation and economic activities, and the qualified services of that Ministry inspect and supervise their work. The Federations are formed either by Government initiative or at the instance of the *gremios* concerned, and they receive a brevet from the Under Secretary of State for Corporations, given at the request of the Ministry of Economy. If so authorized, the federations may set up regional delegations. On the strength of a decision taken by the Minister of Economy at the request of the Under Secretary for Corporations, a government *delegate* may be appointed to each federation. This delegate may veto any decision which he considers injurious to the national interest or to that of production; his veto has a suspensive effect until a decision on the matter is taken by the Minister or by the aforesaid Under Secretary. Likewise, the resolutions passed by the organs of the federations are subject to appeal with devolutionary effect, to the two above mentioned authorities. The organs of the federations are the General Council and the Board of Directors. The *General Council* is formed by the acting presidents of the boards of the federated *gremios*. Its duties are to elect each year the presidential board; to elect the members of the board of directors; to prepare and approve the budget; to examine and discuss the accounts and the annual report; to give an opinion on questions submitted to it by the board of directors. It holds its ordinary meeting once a year; any other meetings are called by the president who presides over the sittings, etc. The *Board of Directors* is elected for three years by the General Council and consists of a president, a vice-president, to both of whom the Minister may grant a monthly compensation, and of three members. The Board of Directors represents the federation at law and elsewhere; it submits a draft of the budget, the report on the business year, and the accounts, it decides on all matters not reserved to the Board, etc. The Federation is pledged by the signature of two members of the Board of Directors, one of whom may be a member. The members of the Board of Directors are held civilly and penally responsible. As to the *finances* of the federations, their receipts

include the contributions made by the *gremios pro rata* of their total receipts; the interest on their funds, etc., their expenditures are those incurred in carrying out their objects. The federations if so authorized by the Ministry, may secure loans guaranteed by their property or by their receipts. Some general provisions at the end of the Decree-Law lay down that a federation may be dissolved under certain conditions, as for instance, if it has not performed the tasks assigned it; if it has not supplied the superior organizations with information on matters within its purview; if it has contributed by its actions or if it has encouraged disturbances affecting social discipline, etc., Its dissolution does not relieve its members of their responsibilities or from any penalties they may have incurred.

(b) Relief and premiums.

BELGIUM

The Regent's Decree of January 17, 1948 (*M. B.*, No. 28, January 28, 1948, p. 711) establishes a premium for wheat production. For the quantity of wheat of the 1948 crop delivered by a farm, over and above the quantity it was required to deliver on the 1946 crop, the farmer will receive a premium of 120 francs per 100 kgs.

The Regent's Decree of February 4, 1948 (*M. B.*, No. 47-48, February 16-17, 1948, p. 1243) grants subsidies to agricultural professional organizations which possess an agricultural accountancy service.

FRANCE

A Decree of the Ministry of Agriculture of December 27, 1947 (*J. O.*, No. 11, January 13, 1948, p. 389) fixes the amount of the premiums granted for the reconstruction of olive groves in 1947. The rate of the premium has been fixed for each tree as follows: (1) premium for regenerating or grafting, 6.56 frs.; (2) premium for planting new trees, 13.12 frs.

ITALY

A Decree No. 1483 of December 12, 1947 (*G. U.*, No. 4, January 7, 1948, p. 49) authorizes an expenditure of 25 milliard lire for integral land reclamation works and for reviving the productivity of farms. The amount is distributed as follows: (a) 3 milliard and 300 million are assigned for the repair and reconstruction of public land reclamation works destroyed or damaged by the war; (b) 12 milliard and 700 million are assigned for the execution of land reclamation works, drainage works, and forestry works in mountain basins; (c) 8 milliard are assigned for making grants in connection with expenses incurred in carrying out land improve-

ment works ; (d) one milliard is assigned for grants to be used for taking measures against unemployment and for promoting the revival of the productivity of farming undertakings.

(c) Land reclamation.

NORWAY

Act No. 6 of December 12, 1947 (*No. L.*, No 48, December 22, 1947, p. 998) provides for provisional water conservancy measures until July 1948. The rules laid down in the Act of December 14, 1947, are to be applied by analogy. All requests for surveys relating to expropriations that have to be made, must be sent in within the delays established by the qualified Ministry. The Government guarantees the payment of the compensation allowed, and the Ministry may require that the expropriation give guarantees equivalent to those which it requires.

(d) The control of plant pests.

BELGIUM

The Decree of February 4, 1948 (*M. B.*, No. 54-55, February 23-24, 1948, p. 1461) requires land owners to destroy immediately field mice and voles whose presence has been ascertained. Should they fail to do so the burgomaster is required to attend to the destruction of these rodents *ex officio*. The systems to be used for destroying them may be regulated by the Minister of Agriculture.

FRANCE

A Decree of January 8, 1948 (*J. O.*, No. 11, January 13, 1948, p. 389) completes the list of custom-house bureaux authorized to receive products to be submitted to the sanitary control of imported plants prescribed by the Decree of December 31, 1946, adding to the list the custom-house bureau of Cherbourg. The bureau of Toulouse has also been added to the list by the Decree of February 7, 1948 (*J. O.*, No. 42, February 16-17, 1948, p. 1673).

CZECHOSLOVAKIA

The Decree of October 29, 1947 (*S. Z. N.*, No. 92, December 3, 1947, text 190, p. 1039) contains protective measures against the *Epitetranychus* of hops (*Epitetranychus altheae*). The Decree first provides that hop-growers in areas planted to hops are required to protect their plantations at their own expense and by suitable means against the attacks of this pest and to destroy it at all stages of its growth (eggs, larvae in their several stages, pupae, etc.). The means to be employed are the elimination of plants twigs, branches, leaves and hops after the harvest by burning them, using them as forage, or by other

means, so as to avoid the further spread of this pest ; the disinfection of poles used to support the plants ; the spraying of the plants in good time with sulphur sprays and other suitable products, notified by the qualified phytopathological stations to the local peoples' committees and to the regional organizations of hop-growers, while at the same time notifying the Ministry of Agriculture. The obligations in the matter of disinfection and the use of protective measures will be recalled each year in the middle of March by the local Committees of the people in the hop-growing communes ; the duty to destroy the plants or their parts will be recalled at the time the hops are picked. Should the hop-growers culpably neglect to carry out the instructions given them, the local Committee, and in its absence the district committee, will have the necessary work done at their expense. Should the pest present a real danger owing to its wide spread, or should it threaten to become dangerous, all the land owners of the commune or of a whole zone, are required to take at their own expense the collective measures necessary ; in such cases the local committee of the people may decide that these measures be taken by the commune on the whole or part of its territory, the land-owners being required to allow and collaborate in this action. The expenses are met in the first place by the commune and are then distributed by the local committee among the parties concerned according to the number of plants attacked or threatened. The technical supervision to assure the observance of the Act of July 2, 1924, text 165, relating to plant cultivation is carried out, in the case in point in Bohemia by the Institute for the protection of plants, which is one of the Government agricultural research institutes ; in Moravia-Silesia by the similar Institute at Brno ; in Slovakia by the Government agricultural research Institutes at Breslau and Kosice. The control organs of these Institutes will be the agricultural research stations or other public establishments, the regional organizations of hop-growers, the schools of agriculture, or persons (as far as possible public officials) authorized to act by the Ministry of Agriculture, etc. The service of information on this hop pest will be provided, in the several areas, by organs designated by the Minister of Agriculture (in Slovakia through the Office of Agriculture) on the advice of the Institutes of research and the regional organizations. The organs of the Institutes and those for control and information will have access to the hop-gardens in the presence of the land owner or of his representative, or in their absence. The owner who failed to fulfil his obligations, must reimburse the expenses incurred in connection with the inspection ; he may appeal to the Committee of the people of his respective province within 15 days of receipt of the communication from the Institute. Arrears of expenses or of contributions

may give rise to distraint. Otherwise, the contributions are collected annually through the regional organizations in an amount fixed by the Minister of Agriculture acting in consultation with the Minister of Finance and with the Superior Office of Prices, after having secured the advice of said organizations.

(e) Stockbreeding.

BELGIUM

The Ministerial Decree of January 29, 1948 (*M.B. No. 32, February 1, 1948, p. 860*) amends that of November 5, 1947, making general regulations for the improvement of cattle.

FINLAND

A Resolution of January 2, 1948, No. 22 (*F.F., No. 20-24, January 15, 1948, p. 21*) provides, in conformity with the Decree of August 11, 1938, for the enforcement of the Act on the production and sale of forage and chemical fertilizers, that mineral mixtures for cattle, horses, sheep, and pigs, must, until the end of 1948, contain not less than 20 % of P_2O_5 and 25 % of carbonate of lime, and comply with the general conditions laid down for these kinds of mixtures. The Minister of Agriculture under date of January 9, 1948 (*F. F., No. 25-31, January 17, 1948, pp. 54 and 55*) has issued a number of provisions laying down the conditions to be observed in the case of certain products used as feed for livestock.

The provisions already laid down in the Decree of August 11, 1938, for malt bran and flour, are amended to the effect that as from January 9 of the current year the aforesaid products, which also contain additional substances obtained from the milling of wheat, may be put on sale freely until the end of 1948.

Likewise a Resolution No. 29, also of January 9 authorizes the preparation, until the end of 1948, of forage mixtures for chicken feed, provided their content of rough fibre amount to not more than 16 % of the dry organic matter, and providing the other conditions comply with those prescribed.

On the same January 9, the Ministry of Agriculture issued Resolution No. 30, amending the conditions required, in the case of oil-cakes, and permitting, until the end of 1948, the manufacture of oil-cake comprising paper conglutinated with resin and sulphate of aluminium up to 0.5 % by weight, at the most, of the product.

(f) Agricultural contracts.

SWITZERLAND

A Decree of the Federal Council of January 20, 1948 (*R. L. F., No. 3, February 12, 1948, p. 59*), establishes a model type of labor contract for gardeners employed in private, non-commercial gar-

dens. It defines their wages, holidays, length of work (50 to 52 hours per week according to the season), compensation for overtime, insurances, etc. The model contract allows a period of trial during the first two months of the engagement when the contract may be cancelled on seven days notice.

(g) Agricultural machinery.

DENMARK

A Notification, No. 447 of October 22, 1947 (*L.A., No. 55, October, 29, 1947, p. 1234*) contains provisions relating to the registration and use of farm tractors with a view to facilitating the use of the motor power at the disposal of agriculture.

The new measures have been taken in view of those contained in the Decree No. 131 of April 14, 1932, on the registration and use of motor vehicles, which form their basis.

The new Decree provides that the owners or operators of farms and the Agricultural Machinery Experiment Stations can have their tractors registered, even if they be not fitted with two different kinds of brakes and other accessories.

The Decree defines the way in which tractors should be fitted up and their use, and also contains provisions about the transport of peat, wood, lignite, etc.

III. - ECONOMICS AND MARKETS

(a) Price control.

FINLAND

A Resolution approved by the Minister of Agriculture on January 20, 1948, (*F. F., No. 44-47, January 23, 1948, p. 70*) fixes the prices of potato fecula, basing them on the provisions of the Resolution of the Council of Ministers of March 15, 1945. The maximum price of potato fecula is fixed at 66 marks per kg. wholesale, and at 74 marks retail.

The Government establishment for the supply of cereals may however only charge wholesalers 63 marks and 50 penni for potato fecula sold to them directly.

FRANCE

Under the Act No. 48-318, of February 25, 1948, (*J. O., No. 50, February 26, 1948, p. 2026*) the offence of charging illicit prices is committed whenever there is a sale or offer for sale of products, or services, or offers of products or services at prices higher than those charged by the seller or the offerer of services on January 15, 1948, unless the rise be justified by a corresponding one in the cost of the products or services considered. Any producer, seller, warehouse, holder or owner of products contemplated by the decrees issued under the Act

is required to make, if requested so to do by the qualified authorities, a return of his supplies. A refusal or a false return is assimilated to the offense of charging illicit prices. The Act will not be applicable to acts posterior to December 31, 1948.

Decree No. 48-339 of February 27, 1948 (*J. O.*, No. 52, *February* 28, 1948, p. 2107) contains a list of the products and services to which the provisions of the Act No. 48-318 of February 25, 1948 are applicable. The following foodstuffs are included in the list: ordinary wines and vinegar made from wine, ordinary fruits and vegetables, citrus fruit and bananas, potatoes, vegetable preserves, fruit preserves, offal preserves and made dishes.

NORWAY

A Royal Resolution of December 19, 1947, (*N. L.*, No. 49, *December* 31, 1947, p. 1042) contains new provisions based on the Act of June 30, 1947, on the regulation of prices, with special reference to immovables.

The purpose of the Resolution is first of all to prevent unfair prices being charged for immovables. In no case may the price of an immovable exceed that fixed by the price control authorities. The seller is even required to ask for an appraisal and the immovables may not be conveyed until this appraisal has been made and the result accepted definitely. Specific rules are laid down for the appraisal, taking into account ruling prices of landed property located in the same district during the period running from January 1 to April 8, 1940. No account is to be taken of any rise in value which may occur owing to circumstances that have not altered the property in itself, such as, for instance, an increase of population in the district, a betterment of communications, or better opportunities for marketing the produce of the property, etc. Should improvements have been made after April 8, 1940 they may be taken into account for increasing the price. Should the improvement consist in the construction of new buildings of essential importance for the value of the property their value must be taken into consideration in calculating the expenses, as the property generally speaking must be valued taking into account the condition in which it stood on April 8, 1940.

The Resolution under consideration foresees a request for an appraisal made either by the owner or by other interested parties desirous of securing as high a price as possible for the land. It also foresees an estimate of the value of the furniture and chattels included in the inventory of the property. Detailed provisions regulate the procedure for making the appraisal, the appeal to the qualified bureau of the district against the appraisal made by the 'Price Board', the several delays granted, etc.

Other provisions also fix the rents of farm holdings and the length of the lease which may not exceed a maximum of ten years. The price fixing authorities will fix the compensation to be paid should the right of usufruct be extended to more than the ten years, the procedure to be followed in making the appraisal, the exemptions granted, the prohibition to raise the prices fixed and the cases in which this right is granted, distraints, foreclosures, etc.

(b) Agreements and conventions.

ITALY

A Decree No. 1430 of November 28, 1947 (*G. U.*, No. 295, *December* 24, 1947, p. 3781) gives full and entire execution to the Peace Treaty signed in Paris on February 10, 1947, between Italy and the Allied and Associated Powers, and come into force on September 16, 1947. The Chief of the State, after the deliberations of the Council Ministers, under Art. 3, No. 1 of the Act No. 100 of January 31, 1926, will take the necessary measures for carrying out the Treaty, in derogation, if need be, to existing laws.

(c) Control of domestic and foreign trade.

DENMARK

A Decree No. 426 of October 13, 1947 (*L. A.*, No. 51, *October* 14, 1947, p. 1186) contains measures taken on the basis of the Act No. 387 of September 30, 1947, relating to the Government subsidy in view of the regulation of the prices of butter and lard.

As from the date when the said Decree comes into force, i. e. October 13, 1947, a duty is levied on Danish butter for export if the price exceeds 4.46 crowns per kilogram. This duty is levied so as to equalize the level of prices paid for butter for export and for that consumed on the home market.

The task of fixing the level of the said duty is entrusted to the Ministry of Agriculture and Fisheries, but it is collected by the committee placed in control of butter exports under the Ministry of Agriculture. Dairies and condensed milk factories are required to keep books showing the quantities of milk delivered to them daily by the producers and to send weekly reports to the committee above mentioned.

Government inspection of dairy products and eggs is carried out by special agents attached to the service for this purpose.

FINLAND

An Act No. 115 of February 13, 1948 (*F. F.*, No. 115-122, *February* 14, 1948, p. 121) places a duty on roasted coffee at the rate of 800 marks per kilogram, to be paid during the calendar month in which the coffee is put on sale.

In the case of exports of coffee on which the duty has already been paid, the shipper is entitled to a drawback provided the export be made within two months of the payment.

FRANCE

A Decree issued by the Ministry of Agriculture on January 2, 1948 (*J.O.*, No. 10, January 11, 1948, p. 311) set up under the Ministry of Agriculture an inter-professional advisory committee on imports and exports of fruit juices. This Committee has the duty of proposing the procedure to be followed in distributing import and export permits. The Decree of January 20, 1948 (*J.O.*, No. 18, January 21, 1948, p. 662) approves the statutes of the French Company of Insurance for Foreign Trade.

The French Company of Insurance for Foreign trade set up by Decree No. 46-1332 of June 1, 1946, is regulated by the provisions of the commercial code, by the laws regulating limited liability companies, by the laws and regulations relating to insurance companies, and by its statutes. It has its head offices in Paris, and will last for 99 years as from the day of its incorporation. Its purpose is to guarantee export and import transactions, and generally speaking all foreign trade business. For this purpose it insures (I) on Government account (a) against political and monetary risks of catastrophies, and against extraordinary commercial risks in connection with such transactions; (b) as an exceptional measure it insures on behalf of the French Bank of Foreign Trade, and, when specially authorized to do so by the Credit-Insurance-Committee, the risk of insolvency of the exporter or importer in connection with those foreign trade transactions financed by the aforesaid Bank which, in the opinion of the qualified Ministers, are of essential importance for national economy but which, on account of their nature or their amount, can not be covered by an ordinary commercial guarantee; (c) the Company also attends on Government account to completing and liquidating transactions made before it started work under the Acts of July 10, 1928 and August 22, 1946, and the subsequent amending texts, and under the provisionally applicable Act of November 23, 1943; (II) under the control of the Government, and if necessary with its financial assistance, (a) ordinary commercial risks connected with foreign trade transactions, (b) on behalf of the French Bank of Foreign Trade, the risks of insolvency of the exporter or the importer in connection with foreign trade transactions financed by the said bank, in those cases in which the said transactions can not be covered by a normal commercial guarantee.

The Company's capital is fixed at 50 million francs, divided into 10,000 shares of 5,000 francs

each. The only concerns which may participate in the formation of the Company, subscribe its capital, or acquire a share in it later on, are: the *Caisse des dépôts et consignations*; the *Crédit national*; the *Banque française du commerce extérieur*, the nationalized Insurance Companies and the *Société française d'assurances pour favoriser le crédit*.

A Decree of January 22, 1948 (*J.O.*, No. 25, January 28, 1948, p. 888) lays down, on the advice of the Permanent Section of the Advisory Committee on diseases of livestock, that as from January 28, 1948, the importation and transit through France of domestic or wild rodents, living or dead, is forbidden as also that of their raw or green skins, whether salted or not, wherever they may come from and whatsoever their origin. This prohibition is extended also to the skinned or cut up carcasses of these animals. Exceptions may however be granted by the Minister of Agriculture, at the request of importers.

Decree No. 48-136 of January 23, 1948 (*J.O.*, No. 24, January 27, 1948, p. 839) sets up under the Ministry of Agriculture a national Committee of publicity in favour of wine. The task of the Committee is to study and submit to the Minister of Agriculture any measures intended to encourage the consumption and export of wine and grapes.

The Committee consists of ten representatives of viticulture; ten representatives of the wine trade; a representative of the Central Union of agricultural co-operative societies; six prominent viticulturists; four representatives of the Ministry of Agriculture; three representatives of the Ministry of Finance and Economic Affairs, and a representative of the Ministry of Public Health. All the members of the Committee are appointed by a Decree of the Minister of Agriculture for a period of five years. A permanent committee and special sections may be formed within the Committee. A permanent secretariat attends to all administrative work, the preparation of the publicity programs and their execution after their approval by the Minister of Agriculture. The expenses incurred are imputed to the publicity fund set up by the Act of July 4, 1931.

Under Decree No. 48-137 of January 23, 1948 (*J.O.*, No. 24, January 27, p. 840) the custom-houses at the airports of le Bourget, Orly, Marseille-Marignane and Toulouse-Blagnac have been opened for the importation and transit of animals and animal products whose entry into France is allowed, after inspection by the sanitary authorities. The veterinary visit required for the importation and transit of animals and animal products will be made only on the request and at the expense of the importers or transit carriers on the conditions fixed by the Decree of September 9, 1932 fixing on the charge for the veterinary inspection of animals and meat at the frontiers.

The Decree of January 24, 1948 (*J.O.*, No. 28, January 31, 1948, p. 1027) prohibits the importation into France and the transit over her territory of birds of all descriptions, living or dead, of any origin. Exceptions may nevertheless be made by the Minister of Agriculture on the request of the importers.

Decree No. 48-237 of February 11, 1948 (*J. O.*, No. 39, February 13, 1948, p. 1570) sets up, under the Ministry of Finance and of Economic Affairs, a Committee on Imports consisting of representatives of the several Ministries and Ministerial departments concerned. The Committee centralizes statements of needs, drawn up by the Ministries, and information on the available supplies of foreign exchange. It draws up import plans to be submitted to the inter-ministerial economic Committee. The Committee supervises the execution of the plans and keeps an inventory of the authorizations of engagements, of imports made, of the foreign exchange held by the Treasury, and of commercial agreements.

A Decree of February 13, 1948 (*J.O.*, No. 43, February 18, 1948, p. 1731) provides for the temporary suspension of the collection of customs entrance duties on wine (other than dessert wines and sparkling wines) prepared exclusively from the fermentation of fresh grapes and the juice of fresh grapes, not offered in bottles, flasks, flagons, 'cruchons' and other similar containers, of a capacity of 5 or less litres.

NORWAY

A Royal Resolution of January 16, 1948 (*N.L.*, No. 3, January 26, 1948, p. 76) issued on the basis of the provisional Act of June 30, 1947, relating to the regulation of prices, has just decreed new measures relating to the exportation of lumber. Sellers exporting building lumber have to pay a price equalization duty fixed at 5 crowns per cubic metre.

In the case of lumber whose price is fixed by the piece or is reckoned otherwise than by cubic metre the Minister of Finance may draw up special tariffs taking into account the price fixed for the block of wood as a whole.

Building lumber is understood as meaning any lumber sold by length or unhewn lumber. The duties must, of course, be paid in conformity with the procedure laid down by the Ministry of Finance.

(d) Trade marks.

FRANCE

The Decree of January 26, 1948 (*J. O.*, No. 31, February 4, 1948, p. 1187) sets up under the Ministry of Agriculture a technical committee on food preserves (fish preserve excluded) for studying and proposing any measures relating to the application of the national quality mark or certifi-

cate of the quality of the said products. The technical committee is formed by representatives of the trade groups and the several ministries and services concerned. The technical committee may also call in to work with it any qualified person whom it thinks it would be useful to assist it in its work. The Committee may divide up into the following sections formed for the purpose of examining the problems peculiar to each branch of the preserves: a section of fruit preserves and jams; a section of vegetable preserves; a section of meat preserves; a section of preserves of poultry and game, cooked foods canned, liver pastes etc.

IV. - STATISTICS

DENMARK

The Danish Government, under the provisions of the important Act No. 158 of March 29, 1943, dealing with economic matters, has issued a Decree No. 11 of January 19, 1948 (*L.A.*, No. 3, January 22 1948, p. 19) laying down rules for securing statistics of poultry for the year running from August 1, 1948 to March 31, 1949. Data on fowls killed during that period must be sent in to the Ministry of Agriculture by all persons provided with a regular shooting licence.

FINLAND

A Resolution No. 18 of January 7, 1948 (*F.F.* No. 16-19, January 13, 1948, p. 39) orders a census of all domestic animals. During March all keepers of domestic animals in all parts of the country are required to supply the data asked for so as to ascertain the number of domestic animals existing with a view to foddering.

Special committees placed under the Ministry of Supplies are charged with collecting the data required.

All keepers of domestic animals must supply the data requested not later than March 15, 1948, stating the number of head of cattle and the fodder required for them.

FRANCE

Decree No. 48-179 of January 13, 1948 (*J.O.* No. 30, February 2 and 3, 1948 p. 1123) makes it obligatory to use the unified nomenclature of products for all classifications and all official statistics. As from January 1, 1948, all the statistical work done either by the government administrations or by private organizations at the request of the administrations, must make use of the said nomenclature. Moreover, all work other than statistical done by the government administrations, all the decisions taken, all the regulations relating to products must use in designating products the terms and the codification of the unified nomenclature. The provisions of the Decree are applicable to all the territories of the French Union.

V. - FORESTRY

FRANCE

Following the Decree No. 47-1883 of September 19 1947, amending the territorial division of metropolitan France in water and forest conservancies and external services, Decree No. 48-63 of January 3, 1948 (*J.O.*, No. 11, *January* 13, 1948 p. 388) fixes the seat and the limits of the forty water and forest conservancies, and of the service for the management of the domain subject to the forestry régime.

The Act of September 30, 1946, setting up a national forestry fund, empowered the Minister of Agriculture to take all measures for the purpose of reforming the French forest domain in conformity with the procedure laid down by the public administration regulations with a view to the organization of works for planting trees and replanting woods, the better use of forest products, and generally speaking of all activities aiming at increasing forest resources, facilitating the sale of their products, and satisfying more fully the needs of the population.

A Decree No. 47-471 of March 3, 1947 (See *Bulletin No. 1*, p. 83) issued the regulations of the public administration dealing more especially with the organization of works for planting trees and replanting woods.

A new administrative regulation issued by a Decree No. 48-48 of January 14, 1948 (*J.O. No. 14*, *January* 16, 1948, p. 517) deals more especially with the application as regards meadows, of the Act of September 30, 1946.

The Minister of Agriculture may draw on the available sums held by the National Forest Fund to make repayable loans for the purpose of facilitating the work of planting trees, replanting woods, the conservation of wooded lands, or of forest equipment.

The loans are repayable in fifty annuities at most starting from the date on which the works are completed. They pay simple interest at the rate of 0.25% per annum.

All owners of lands which could be suited for planting trees, replanting woods, conservation works or works for providing forest equipment, may apply for loans. The applications are considered by the Water and Forest Conservancy, which gets the opinion of the Departmental Committee on which sit representatives of the forest owners, or, if need be, of the communes where the forests are. The application is then sent to the Minister of Agriculture. When making an application for a loan the applicant must state the conditions under which he is ready to give a mortgage in favour of the Treasury on all or part of his property, or to offer other surety of recognized sufficiency.

When the application is made by a public com-

munity, the qualified authorities must enter on the budget of the said community credits for the purpose of repaying the loan.

The amount of the loan granted to an applicant other than a public community may not exceed three quarters of the market value of the property given as guarantee. The loan is paid to the applicant in instalments gradually as the work is carried out.

The decision to grant the loan and fixing its amount, or rejecting the application is taken by the Minister of Agriculture.

ITALY

A Decree No. 1435 of October 29, 1947 (*G.U.*, No. 296, *December* 26, 1947, p. 3786) provides for allocating a sum of 15 million lire on the budget of the Ministry of Agriculture and Forests to be assigned to the National Institute of Agricultural Economy as the annual contribution made by the Government to the cost of the operation of that Institute. This sum is entered for each of the financial years 1947-48, 1948-49, 1949-50.

A Decree No. 1482 of December 10, 1947 (*G.U.*, No. 4, *January* 7, 1948, p. 49) empowers the Ministry of Agriculture and Forests to entrust for a period of 5 years to legal entities or private individuals studies and researches including those of an experimental nature, required for drawing up a general plan and proposals for land-reclamation. The costs entailed may not exceed 0.50 % of the outlays authorized for executing integral land reclamation works and the maximum must not exceed 40 million lire per annum. These expenses will be advanced by the Treasury which will reimburse itself out of the quotas charged to the parties concerned.

VI. - FISHERIES

DENMARK

A Notification No. 550 of December 22, 1947, (*L.A.*, No. 77, *January* 8, 1948, p. 1455) contains provisions based on the Act of December 22, 1947 on imports and exports of fish.

Under these provisions all exports and re-exports of fish, shrimps, and crustaceans of any kind, fresh or frozen, must be made under a written authorization delivered by the Ministry of Fisheries in return for the payment of a due which in no case may be for less than 10 crowns.

The above provisions apply both to lots of fish exported directly from the country and to others caught by Danish ships. Other measures laid down in the notification refer to the control to be exercised on exports, to the exceptions that may be made in special cases, and to the importance of the lots accepted for export.

A notification No. 554, also of December 22, 1947, (*L.A.*, No. 77, *January* 8, 1948, p. 1462)

contains special provisions for the export of fillets of cod frozen, which may not be made without a special permit which the holder may not make over to other persons.

Detailed prescriptions relate to the permits for freezing to be carried out in special cold storage establishments, to the supervision to be exercised in their regard and to the conservation of frozen fillets of cod. Similar provisions have been decreed on the same date of December 22, 1947, by the Notification No. 556 (*L. A., No. 77, January 8, 1948, p. 1411*) relating to fillets of flat fish or flounders.

NORWAY

Mention should be made of a provisional Act No. 8, of December 5, 1947 (*N. L., No. 47, December 17, 1947, p. 981*) containing provisions for regulating the production, transport, and sale of bait.

The qualified Ministry is empowered to forbid any business of this kind which has not first obtained a special permit. These provisions may however be limited to certain kinds of bait, to certain districts and to certain special fisheries.

POLAND

The Decree of October 28, 1947 (*D. U. R. P., No. 66, October 30, 1947, text 406, p. 1119*) provides for establishing a Sea Fisheries Institute. The new Institute placed directly under the Ministry of Navigation (hereinafter referred to as 'the Minister') whose definitive seat will be at Kolobrzeg (Kolberg in Pomerania), will attend to scientific research into sea fisheries, it will make studies and will collaborate on questions relating to the establishment of settlements of fishermen, the development of sea fisheries, and the services directly connected therewith; and will carry out any tasks assigned it by the Minister which come within its purview. The Institute is a legal entity and may, as such, own, purchase, sell and mortgage movable and immovable properties, accept donations and legacies. Should the latter be subject to conditions, their acceptance must be approved by the Minister jointly with the Minister of the Treasury. The Institute will take over all the assets of the former association of the same name (Sea Fisheries Institute); it will be assigned by the two above mentioned Ministries movables belonging to the State which will become its property, and immovables belonging to the State which it will administer and hold in usufruct. The Minister jointly with his aforesaid colleague, will settle the bases on which the Institute will administer its own properties and those entrusted to it, and will provide for the control of this administration. The temporary seat of the Institute will be at Gdynia.

The governing organs of the Institute are the Direction and the Council. The Minister appoints and dismisses the Directors. Under a statute the

Minister jointly with the Minister of the Treasury will settle in detail the composition and the duties of the governing organs of the Institute, the procedure for nominating the members of the Council, and all matters concerning the organization and work of the Institute. The Decree comes into force on publication.

VII - RURAL WELFARE

(a) Agricultural cooperation.

ITALY

A Decree No. 1421 of December 11, 1947 (*G. U. No. 293, December 22, 1947, p. 3757*) establishes a special section of the *Banca Nazionale del Lavoro* for granting credit to co-operative enterprises. The section is a legal entity separate from the Bank. Its capital consists of a fund of 500 million lire to be fully paid up before December 31, 1947, of which 300 million are charged to the Government, 50 million to the Bank, 50 million to the Credit Institute for Savings Banks, and 50 million to the Central Institute of the Savings Banks. The endowment fund may be increased by further payments made by the credit institutes authorized to hold a share in the aforesaid fund. The Decree contains some measures relating to the organization and operation of this Section.

A Decree No. 1577 of December 14, 1947 (*G. U. No. 17, January 22, 1948, p. 218*) contains measures relating to cooperation.

The supervision of co-operative societies and organizations and their associations is assigned as a general rule to the Ministry of Labour and Social Insurances. It is exercised by means of ordinary or extraordinary inspections. The former are carried out as a rule by the national associations of representation, assistance and protection of the co-operative movement, duly recognized. The special purpose of the ordinary inspections is (a) to assure the scrupulous respect of legislative, regulatory, and statutory provisions and those of a mutual character; (b) to ascertain the existence of the qualities required by law for obtaining the fiscal and other facilities enjoyed by co-operative associations; (c) to ascertain the regular operation of the accountancy and administrative services; (d) to assure scrupulous technical organization and the punctual performance of the specific work assigned the co-operative associations; (e) to inspect the consistency of the capital assets and the situation of the assets and liabilities of such societies.

The Decree under consideration contains measures relating to the composition of the co-operative societies. The number of members is unlimited but must not be less than 9, except in the case of co-operative societies of production and work which are authorized to tender for public contracts, in whose case the minimum number of members

is fixed at 25 and in that of co-operative distributing societies in which the minimum number is 50. The Decree lays down the qualities members must possess for admission which, in the case of agricultural co-operative societies, are that persons exercising an activity other than that of farming cannot be admitted as members of co-operative societies engaged in collective farm tenancies or in leasing lands granted under the Decree No. 279 of October 1, 1944, amended and completed later on.

Land-owners, tenant farmers and métayers may not belong to such co-operative associations unless they operate a holding themselves personally of a size not sufficient to employ the whole labour power of the family. Persons who do not personally operate a holding may however be admitted as members, but only on a number not to exceed 4 % of the total membership, and on condition that they be assigned exclusively to administrative and technical work which can only be performed by persons who are members. As a general rule no member may hold a quota of more than 250,000 lire in a society, nor a number of shares whose nominal value exceeds this figure. The nominal value of the quota or share may not be less than 500 lire nor, in the case of shares, superior to 10,000 lire.

For taxation purposes, the societies are held to be mutual associations, — a quality required for enjoying the fiscal facilities provided by the Act, — if their articles of association contain the following clauses: (a) the prohibition to distribute dividends higher than the legal rate of interest; (b) prohibition to distribute the reserves to the members during the life of the co-operative society; (c) in case the co-operative association should be wound up, the capital is to be assigned for purposes of public utility without deducting therefrom the amount of paid-up capital and of the dividends not yet fallen due.

(b) Social security.

FRANCE

Act No. 48-101 of January 17, 1948 (*J. O.*, No. 16, January 18, p. 562) pending the application of the definitive system of social security applicable to persons not entitled to the régime in force for wage-workers or assimilated persons, sets up a system of old-age allowances which are assured to each of the professional groups for which an autonomous organization which may ultimately entail the establishment of a National Bank, local Banks or professional Sections is to be set up. The autonomous organization of old-age allowances is established for each of the following professional groups: (1) handicrafts; (2) industrial and commercial professions; (3) liberal professions; (4) agricultural professions.

The agricultural professions group together persons who are not wage-workers, exercising one of the professions contemplated by the Decree of October, 30, 1935 on agricultural associations, and certain persons exercising professions related to agriculture not included among rural artisans, or whose last professional activity consisted in the exercise of one of these professions.

Old age allowances are granted from the age of sixty-five or of sixty in the case of persons recognized as unfit to work. On the request of the parties concerned, the assignment of the allowance may be postponed until an age older than that of sixty-five; in such cases the allowance is majored in accordance with a table drawn up by a ministerial decree.

Anyone exercising one of the professional activities contemplated by the Act is required to pay to the fund to which he or she is assigned the subscriptions for financing the system of old-age allowances, in conformity with the rates and the assessment of the subscriptions fixed by decree.

(c) Rural dwellings.

DENMARK

A Danish Act No. 449 of September 23 (*L. A.*, No. 56, November 1, 1947, p. 1237) contains provisions relating to the construction of rural dwellings for workers.

The Act assigns the application of these provisions to the Ministry of Agriculture assisted by the 'Land Commission' and by the Committees of small tenant farmers.

In the first place the Act prescribes the conditions for obtaining building lots and loans. It also specifies the lands belonging to the State and suited to the purpose of building dwellings for rural workers. The area of the lots must not as a rule exceed 3000 sq. meters nor must it be less than 1000 sq. m. and should be located in rural areas. A special Act provides for each financial year a maximum credit to be drawn on the special funds assigned for land improvement. Special provisions regulate the conditions of sale and the duties of the officials charged with appraising the lands, allocating the loans, the rates of interest, the conditions of repayment, the amortization rates, etc. It also provides for the case in which dwellings for rural workers are built on privately owned lands, and the procedure to be followed in such cases.

ERRATA-CORRIGE

In the European Review of the FAO, No. 4, (February-March 1948, p. 350, Note on Poland, lines 14 and 15 of the Note, instead of "... rolls containing not less than 80 % of wheat flour..." read: "wheat flour rolls at not less than 80 %..."

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